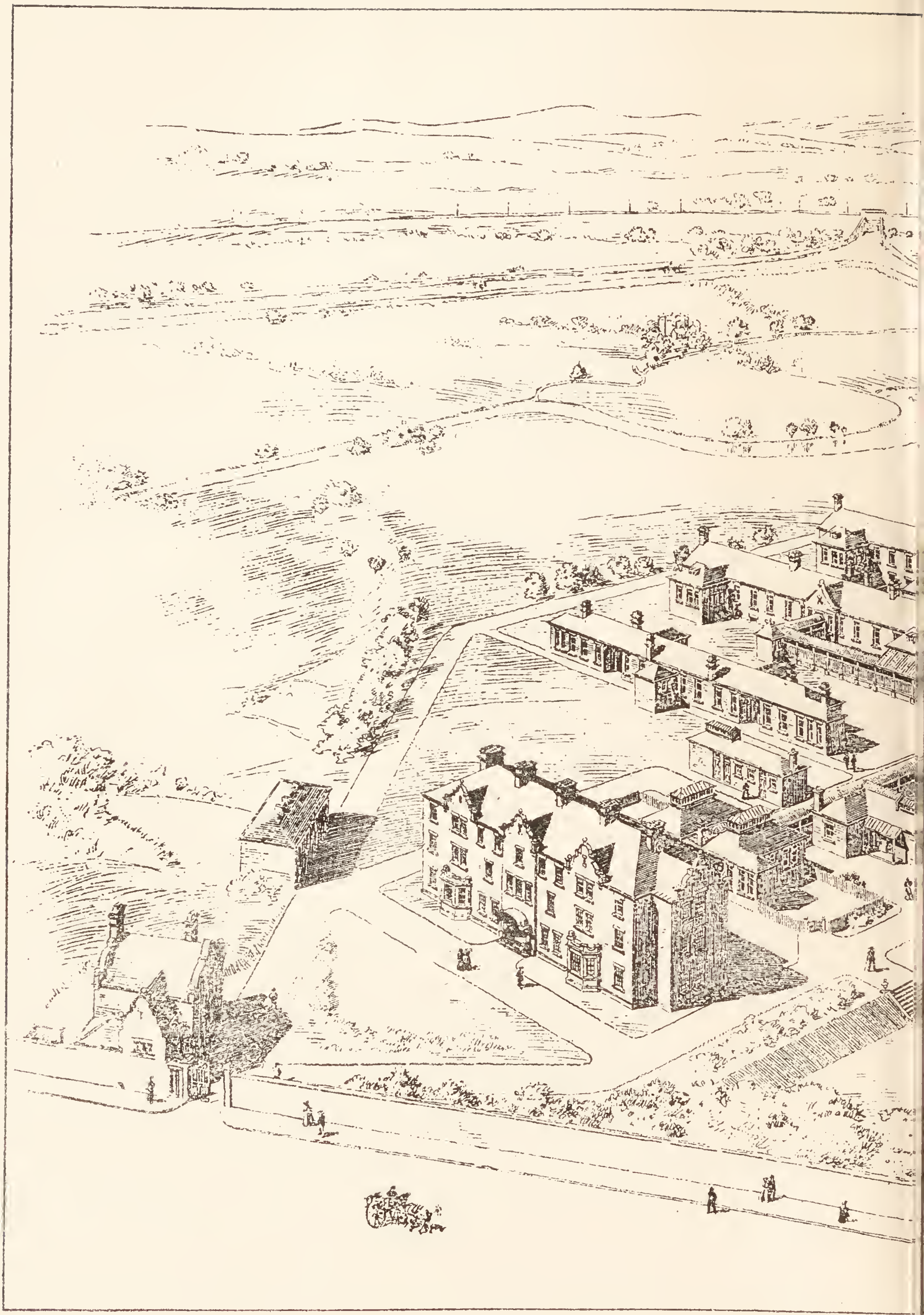

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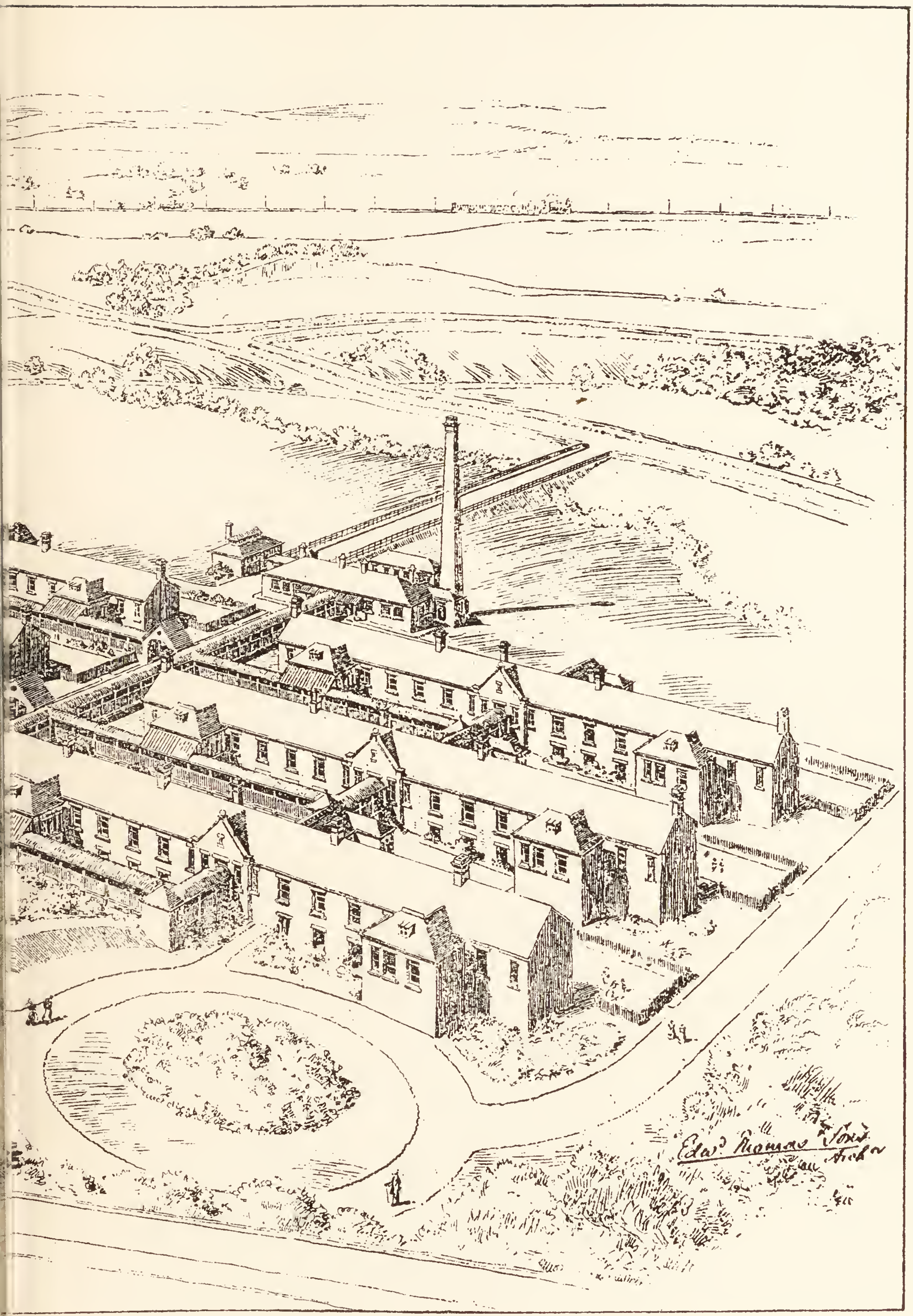

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THE

ANNUAL REPORT

MADE TO THE

URBAN SANITARY AUTHORITY

OF THE

County Borough of Huddersfield,

FOR THE YEAR

1898,

BY

ERNEST GEORGE ANNIS,

M.R.C.S., L.R.C.P., L.S.A., D.P.H.,

Medical Officer of Health to the Borough;
Medical Officer to the Birkby Fever Hospital;
Medical Officer to the Sanatorium, Mill Hill, Dalton.

PRINTED BY ORDER OF THE HEALTH AND SANITARY COMMITTEES.

HUDDERSFIELD:
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COMMITTEES.

Health.

Wm. Hy. Jessop, Esq., Mayor, and 21 Members.
Mr. Councillor B. Broadbent, M.A., Chairman.
Mr. Councillor T. A. Cockin, Deputy-Chairman,

Aldermen:

S. Kendall
J. L. Walker, J.P.

Councillors:

J. Addy
J. H. Aston
F. A. Barras
E. A. Beaumont
J. Frost
A. Gee
J. Holroyd
W. Jepson
F. Marsland
J. Moorhouse
O. Oxley
H. Pullon, M.B.
R. Riley
H. Roebuck
G. Spivey
J. Sugden
E. Swallow

Duties and Powers of the Health Committee.

To execute and perform in the name and on behalf of the Council, but subject to the Standing Orders of the Council and to confirmation by the Council, all the powers and duties of the Corporation in relation to the following:—

Main Intercepting Sewers and Sewage Disposal Works.

Agreements with other Authorities as to Disposal of Sewage.

Cleansing of Sewers in Central District.

Storm Overflow Sewers in the Central District.

Infectious and Epidemic Diseases.

Hospitals for Infectious Diseases.

Common Lodging Houses.

Cleansing of Infected Houses.

Prevention of Pollution of Rivers and Streams.

Health Statistics and Sickness and Mortality Returns.

Superintendence of the Department of the Medical Officer of Health (in conjunction with the Sanitary Committee.

Property of Corporation at Deighton, adjoining Sewage Disposal Works.

Sanitary.

Wm. Hy. Jessop, Esq., Mayor, and 18 Members.
Mr. Alderman Jordan, Chairman.
Mr. Councillor J. Firth, Deputy-Chairman.

Aldermen:

A. Haigh, R. Hirst, J.P., and E. B. Woodhead.

Councillors:

A. Ainley
T. Cartwright
J. Frost
A. Gee
W. Hirst
J. Holroyd
J. Moorhouse
O. Oxley
R. Riley
G. Spivey
G. Thompson
A. Whittell
J. Wilkinson

Duties and Powers of the Sanitary Committee.

To execute and perform in the name and on behalf of the Council, but subject to the Standing Orders of the Council and to confirmation by the Council, all the powers and duties of the Corporation in relation to the following:—

Scavenging of Streets.

Removal and disposal of Nightsoil and Refuse.

Public Urinals and Conveniences.

Nuisances.

Offensive Trades.

Control of Drains, Privies, Ashpits, and Cesspools.

Buildings and rooms unfit for habitation.

Polluted Wells.

Adulteration of Food and Drugs.

Unwholesome Food.

Cowsheds, Dairies and Milkshops.

Canal Boats.

Factories and Workshops.

Superintendence of the Department of the Medical Officer of Health (in conjunction with the Health Committee).

STATISTICAL SUMMARY.

Situation—Latitude, 53° 39′ 7″ N.; Longitude, 1° 47′ 30″ W.

Elevation of the area built over—Varies from 200 feet to 600 feet above ordinance data.

Area of the Borough—11,852 acres; of the Central District, 734 acres.

Density of Population—For the Borough, 8·6 persons per acre; for the Central District, 37·2.

No. of Inhabited Houses—At Census (April) 1891, 20,930.

Population—(1891) 95,422; Estimated at the middle of 1898, 102,454.

Birth Rate—22·48 per 1,000.

Death Rate—Recorded, 15·91 per 1,000.

,, Zymotic, seven commoner Infectious Diseases, 1·51.

,, Infantile Mortality, 153 per 1,000 births.

,, Diseases of the Respiratory Organs, 3·08.

Mean Annual Temperature—49·1 degrees F.

Total Rainfall—30·24 inches.

HEALTH OFFICE,
RAMSDEN STREET,
APRIL, 1899.

CHAIRMEN AND GENTLEMEN,

I have the honour to submit herewith, in accordance with the regulations of the Local Government Board, the Annual Report for the County Borough of Huddersfield, for the year 1898.

The mortality statistics contained herein are in themselves of a very gratifying and satisfactory character, showing that the various sanitary improvements carried out are having their effect upon the conditions affecting the health of the inhabitants generally.

The estimated population, which is used as the basis of all the calculations concerning the vital statistics for the year, is 102,454, which is the number of persons estimated to be living at the middle of the year 1898 in the County Borough of Huddersfield, and this figure is the same as that used by the Registrar General in his various departmental returns, and our rates are, therefore, more readily comparable with those of other towns. Although from various causes we have reason to believe that the further we get from the last census year the greater error is there likely to be in the computations of the estimated living population at any period.

The birth rate during the past year has again declined from 23·4 per 1000, in 1897, to 22·48 per 1000, comparing with 30·35 per 1000 for the thirty-three large English towns, amongst which it ranged from Huddersfield 22·48, Halifax 22·9, Bradford 24·0, up to Wolverhampton 35·8 per 1000 population.

Our crude general death rate has again declined slightly from 16·4 per 1000, in 1897, to 15·9 per 1000 during 1898, which is the lowest rate hitherto recorded for any year in Huddersfield, being the same figure as for the year 1894, so that it would seem that in these two years, 1894 and 1898, we had reached our highest watermark of population remaining alive in the town.

This in itself is a very gratifying feature when we make comparison with neighbouring manufacturing centres, for we find Halifax had a death rate in 1898 of 17·9, Bradford 17·6, Leeds 19·2, and Sheffield 20·2 per 1000 population. In fact, judging by our crude death rate alone, Huddersfield stands with the fourth lowest death rate of the 33 large English towns, being preceded by such well known salubrious residential towns as Croydon, Cardiff, and West Ham.

Our Zymotic death rate of 1·47 per 1000, also is extremely favourable, being again slightly lower than that of the previous year, in fact, it is by far the lowest Zymotic death rate of all the large towns, Croydon coming next with 1·99 per 1000, whilst the average for the 33 large towns was 2·85 per 1000 population.

The Sanitary work accomplished during the year by the Department has been of a very satisfactory character, for we have had several matters of procedure placed on a more reliable basis for carrying on the work, and, besides the regular work for the year, several serious nuisances, which have been in hand for, in one case as long as six or seven years, have been dealt with during the period.

The chief feature of interest during the year, in connection with the preservation of the health of the town, has been the opening by Sir Wm. H. Broadbent, M.D., Bart., of the Huddersfield Sanatorium, which is at present designed to accomodate 100 patients suffering from the various forms of infectious disease. A somewhat extended description of this Hospital and its arrangements is included in the body of this report.

The sincerest gratitude of every individual member of the community is due to our Council, and particuliarly those members who have worked so long and persistently for the provision of this necessary accommodation for the very complete Isolation Hospital, which is now provided, which, if properly taken advantage of, should be a permanent insurance from any serious epidemic of infectious disease in the future.

In conclusion, I have to tender my best thanks to the Chairmen and Members of the Health and Sanitary Committees for their unvarying kindness and support, my medical colleagues for the continuance of their kindly co-operation, the other officials and the members of my staff for their constant and willing assistance at all times.

I am, Gentlemen,

Yours respectfully,

ERNEST G. ANNIS.

VITAL STATISTICS, 1898.

The census enumeration of 1891 gave a population of 95,420 people, and presuming that the increase in population has been at the same rate as occurred during the decennial period, 1881-1891, we estimate that the population presumed to be living at the middle of 1898, was 102,454, or a presumed increase in population during the years 1891 and 1898 of 7,034 persons. The average density of this population for the whole of the Borough is at the rate of 8·6 persons per acre, of course this figure can only be considered as an average, for the actual density of the population in some parts of the Borough is very much higher than this, reaching in the Central districts of the town as high as 37 persons to the acre.

Marriages.

The number of marriages solemnized within the Borough during the year has been 963.

The average annual Return of Marriages in the Borough of Huddersfield and Huddersfield Poor Law Union for four five year periods from 1876 to 1895, also 1896, 1897 and 1898, is as follows :—

Periods.	Borough of Huddersfield.	Huddersfield Poor Law Union.	Average Population of the Borough
1876-80	820	1178	78919
1881-85	852	1247	84633
1886-90	843	1279	91440
1891-95	844	1298	97560
1896	866	1345	100463
1897	879	1306	101454
1898	963	1457	102454

Births.

The total number of births registered during the year has been 2,295, of which 1,164 were males, and 1,131 females, which is equal to a birth rate of 22·48 per 1,000 of the population. The number of deaths during the year was 1,625, therefore, this would show a natural increment to the population of 670 persons.

The subjoined table shews the quarterly number of births of males and females.

1898.	Males.	Females.	Totals.	Birth-rate.
1st Quarter	298	303	601	23·54
2nd ,,	285	276	561	21·98
3rd ,,	302	276	578	22·64
4th ,,	279	276	555	21·74
Totals ...	1164	1131	2295	22·48

The following table gives the Births and Deaths, with the excess of Births over Deaths for the past twenty-eight years.

Year.	Estimated Population.	Births.	Deaths.	Excess of Births over Deaths.
1898	102454	2295	1625	670
1897	101454	2365	1666	699
1896	100463	2096	1712	384
1895	99482	2151	1699	452
1894	98511	1988	1563	425
1893	97552	2311	1695	616
1892	96599	2214	1746	468
1891	95656	2324	2189	135
1890	94253	2167	1804	363
1889	92825	2276	1738	538
1888	91419	2243	1686	557
1887	90034	2487	2063	424
1886	88670	2385	1727	658
1885	87327	2530	1745	785
1884	86004	2576	1707	869
1883	84450	2488	1799	689
1882	83271	2562	1857	705
1881	82113	2567	1665	902
1880	81780	2545	1797	748
1879	80245	2598	1871	727
1878	78900	2759	1733	1026
1877	77600	2705	1735	970
1876	76072	2664	1760	904
1875	75069	2735	1770	965
1874	74150	2571	1585	986
1873	72940	2641	1525	1116
1872	71780	2682	1674	1008
1871	70679	2555	1597	958

Births in the Huddersfield Poor Law Union.

Sub. Reg. District.	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898
Huddersfield	1274	1277	1320	1305	1269	1313	1293	1233	1292	1111	1127	1057	1114	1001	1062	950	1002	966	1099	1059
Almondbury	443	454	413	436	404	440	410	363	394	374	383	359	362	321	355	302	332	352	393	485
Kirkheaton..	427	457	460	437	298	374	448	391	397	412	394	349	367	380	372	335	334	322	359	282
Kirkburton..	404	348	387	355	341	371	317	330	382	338	346	298	328	303	278	297	286	282	255	289
New Mill .	221	221	212	194	207	196	196	202	185	167	174	154	183	157	159	140	162	151	160	156
Holmfirth ..	315	314	305	314	307	289	299	278	268	273	290	241	262	231	234	223	214	236	204	221
Honley .. Meltham..	400	408	408	378	355	373	351	334	376	342	329	323	345	336	303	258	294	290	291	316
Lockwood ..	473	511	512	503	510	544	508	484	473	507	463	449	455	459	438	395	484	402	504	608
Slaithwaite..	253	244	293	283	279	294	283	249	254	260	245	249	273	308	315	295	274	278	226	239
Golcar	652	609	674	651	707	680	651	662	660	640	657	552	582	610	591	493	502	527	547	421
Totals ..	4862	4843	4984	4856	4777	4874	4756	4526	4681	4424	4408	4031	4271	4106	4107	3688	3884	3806	4038	4076

For the information relating to the Poor Law Union I am indebted to Mr. Rigby, Clerk to the Guardians.

Deaths.

The total number of deaths registered during the year 1898 was 845 males, and 780 females, making a total of 1,625 which is equal to a death rate of 15·91 per 1000 living. One hundred and seventy-two deaths occurred in the Public Institutions in the Borough, viz:—79 in the Huddersfield Infirmary, 11 in the Infectious Diseases Hospital, and 82 in the Workhouse. One person formerly residing in Huddersfield died in Wakefield Asylum, 1 in Menston Asylum, and 10 in Wadsley Asylum, making a total of 12 persons whose deaths are not counted in the above figures, whereas the deaths of 43 persons who were taken in to the various public institutions in the Borough and died there, are counted in our gross figures. We usually consider that the two sets of deaths, viz:—those of persons who belong to districts outside and yet died in the Borough, and those who belong to the Borough and died in districts outside balance one another, therefore we do not include the latter, but in this case it will be seen that we are debited with a much greater number of deaths than we are credited with on these two grounds. Of the persons who died in the Public Institutions in the Borough belonging to outside districts, 3 came from Brighouse, 2 from Denby Dale, 1 from Diggle, 1 from Golcar, 1 from Glossop, 2 from Honley, 2 from Holmfirth, 2 from Kirkburton, 1 from Kirkheaton, 1 from Linthwaite, 1 from Lepton, 1 from Leeds, 4 from Marsden, 2 from Milnsbridge, 1 from Normanton, 5 from Rastrick, 3 from Slaithwaite, 2 from Skelmanthorpe, 1 from Scammonden, 1 from Shepley, 1 from Shelley, 1 from Scholes, 1 from Savile Town, 1 from Sussex, and 2 from Wooldale, making a total of 43, of which 32 died in the Infirmary, and 11 in the Workhouse.

The Infantile Mortality recorded by the proportion of deaths in children under one year of age to the number of births registered was 153 per 1000, comparing with 132 per 1000 the figure for last year. The average Infantile Mortality of the 33 large towns was 178 per 1000 births, ranging from

150 in Croydon, 153 in Huddersfield, 156 in Portsmouth, up to 206 in Blackburn, 208 Gateshead, and 212 in Salford, the fact that in this respect again we hold a very satisfactory place is matter for much satisfaction.

Our crude death rate of 15·91 compares very favorably indeed with our own rate of former years, and also with the death rates of neighbouring towns. The average death rate for the 33 Large English Towns being 19·04 per 1000, and ranging from 13·9 Croydon, 14·8 Cardiff, 15·4 West Ham, 15·9 Huddersfield up to 22·70 Salford, 23·98 Liverpool. We have still to deplore a large number of deaths, viz :—2·2 % of the whole, the causes of which are uncertified, either by a Medical Man or by a Coroner.

For comparative purposes I have again included tables showing the various death rates after correction for age and sex distribution, from which it will be seen that on account of our peculiar circumstances in respect to our continued low birth rate we have a very high factor, in fact the highest of all the towns, viz :—1·1627 as the factor for correction for age and sex distribution, which on being applied to the recorded death rate of 15·9 per 1000 alters that figure to the corrected death rate of 18·51 per 1000, placing us in the ninth position judged by the corrected death rate of the Large Towns. From our comparative mortality figure of 1,053, it will be seen that, taking the same number of population and of similar age and sex distribution to that of the whole of England and Wales, which contributed 1000 deaths during last year in England and Wales generally, would have contributed the higher figure of 1,053 in Huddersfield.

Analysis of the Vital Statistics of Thirty-three of the Largest English Towns during the year 1898.

TOWNS.	Population, Estimated to the middle of 1898.	Persons to an Acre, 1898.	Annual Rate per 1000 Persons Living.											Deaths under 1 Year to 1000 Births.	Annual Death Rate per 1000 living.		Percentage to Total Deaths.		
			Births.	Deaths.	Deaths from										Aged 1 to 60 Years.	Aged 60 Years and upwards.	Inquest Cases.	Deaths in Public Institutions.	Uncertified Causes of Death.
					Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Violence.						
33 Towns	11,218,378	35·3	30·3	19·0	2·85	0·00	0·56	0·14	0·31	0·42	0·20	1·22	0·71	178	10·2	71·2	7·5	20·8	1·2
London	4,504,766	60·3	29·5	18·7	2·78	0·00	0·68	0·13	0·39	0·48	0·13	0·97	0·78	167	10·2	69·8	9·0	29·0	0·6
West Ham	286,654	60·9	30·6	15·4	2·68	—	0·32	0·08	0·63	0·42	0·25	0·98	0·71	170	8·2	59·3	7·2	12·3	2·4
Croydon	124,421	13·8	25·4	13·9	1·99	—	0·27	0·07	0·14	0·28	0·09	1·14	0·44	150	6·1	63·5	8·1	17·1	—
Brighton..........	122.310	48·4	24·8	16·9	2·36	—	0·67	0·06	0·17	0·17	0·15	1·14	0·47	181	8·3	58·3	7·1	19·3	0·5
Portsmouth	186,618	40·0	26·7	16·3	2·16	—	0·37	0·17	0·30	0·23	0·23	0·86	0·52	156	8·6	60·4	6·3	16·5	1·0
Plymouth	99,136	43·3	29·7	19·5	2·15	—	0·71	0·04	0·11	0·28	0·06	0·95	0·38	170	9·4	67·6	6·0	11·5	0·6
Bristol............	316,900	27·1	28·6	17·2	2·69	—	0·97	0·04	0·14	0·36	0·08	1·10	0·55	164	8·7	65·4	7·9	16·2	0·7
Cardiff	177,770	29·3	31·1	14·8	2·24	—	0·28	0·05	0·73	0·24	0·10	0·84	0·47	158	7·9	57·3	6·7	11·9	0·7
Swansea	102,001	20·1	28·9	18·6	3·21	—	0·87	0·11	1·22	0·39	0·13	0·49	0·58	184	10·8	62·4	6·4	7·9	1·5
Wolverhampton ..	88,051	25·0	35·8	21·3	3·19	—	0·22	0·26	0·43	0·10	0·23	1·95	0·57	200	10·7	66·0	6·5	13·1	1·1
Birmingham	510,343	40·2	34·0	20·0	2·78	—	0·36	0·09	0·26	0·49	0·22	1·36	0·72	191	10·4	70·9	5·0	17·6	2·9
Norwich	111,699	14·8	29·9	19·0	3·26	—	0·67	0·21	0·13	0·33	0·40	1·52	0·48	192	8·5	63·6	5·8	11·8	0·8
Leicester	208,662	24·3	29·6	16·9	3·35	—	1·03	0·21	0·30	0·09	0·14	1·58	0·56	191	8·2	64·6	6·4	12·9	2·4
Nottingham	236,187	21·5	28·9	17·7	2·37	—	0·44	0·14	0·10	0·25	0·24	1·20	0·65	178	8·9	67·4	5·9	15·3	0·8
Derby	104,834	30·4	27·4	16·8	2·26	—	0·51	0·19	0·09	0·27	0·27	0·93	0·62	169	8·6	75·1	9·0	17·6	—
Birkenhead	113.189	32·4	30·4	17·4	2·53	—	0·27	0·28	0·43	0·07	0·34	1·14	0·45	186	9·1	63·8	6·9	13·4	0·8
Liverpool	633,645	47·9	35·2	24·0	3·22	0·00	0·44	0·23	0·23	0·52	0·26	1·54	1·02	184	14·1	83·0	6·3	23·2	3·4
Bolton	122,495	52·0	30·9	19·4	2·93	—	0·25	0·19	0·07	0·37	0·31	1·74	0·55	168	10·6	88·1	8·7	10·8	0·3
Manchester	539,079	41·8	32·7	21·9	3·11	—	0·50	0·12	0·10	0·32	0·23	1·84	0·77	197	12·3	82·6	7·3	20·0	0·8
Salford	215,702	41·7	34·7	22·7	4·03	—	0·46	0·29	0·15	0·60	0·37	2·16	0·67	212	12·5	79·7	6·2	16·4	1·0
Oldham	148,288	31·4	25·3	17·6	2·15	—	0·57	0·16	0·07	0·44	0·15	0·76	0·41	175	9·9	77·3	5·2	11·3	0·1
Burnley	109,546	27·9	27·1	16·3	2·04	—	0·07	0·05	0·27	0·06	0·25	1·34	0·60	195	8·3	73·7	6·2	9·3	1·7
Blackburn	133,228	19·1	27·1	18·4	2·57	—	0·38	0·12	0·23	0·04	0·24	1·56	0·68	206	9·6	78·8	5·7	9·7	3·3
Preston	116,356	28·5	31·0	19·3	3·07	—	0·02	0·03	0·07	0·53	0·37	2·05	0·47	225	9·1	71·4	3·3	9·8	2·9
Huddersfield .	**102,454**	**8·6**	**22·5**	**15·9**	**1·61**	**—**	**0·31**	**0·10**	**0·13**	**0·11**	**0·10**	**0·86**	**0·57**	**153**	**8·4**	**77·8**	**5·2**	**10·7**	**2·2**
Halifax	96,729	11·3	22·9	17·9	2·15	—	0·73	0·15	0·08	0·36	0·19	0 64	0·49	163	9·7	78·7	5·0	13·5	2·7
Bradford	233,737	21·7	24·0	17·6	2·12	—	0·45	0·05	0·07	0·29	0·21	1·05	0·55	185	9·7	74·3	6·4	12·3	1·2
Leeds	416,618	19·3	31·2	19·2	3·12	0·00	0·46	0·29	0·54	0·89	0·22	1·22	0·63	182	10·4	73·1	8·1	11·6	0·4
Sheffield	356,478	18·1	33·9	20·2	3·82	—	0·49	0·16	0 26	0·62	0·40	1·89	0·53	195	10·5	77·6	4·1	13·0	2·3
Hull	229,887	25·6	33·4	18·4	2·99	—	0·40	0·12	0·07	0·30	0·25	1·85	0·79	182	8·8	70·9	7·7	14·5	1·4
Sunderland	143,849	43·7	35·4	22·6	3·69	0·01	0·59	0·22	0·06	0·47	0·48	1·86	0·76	202	12·5	71·8	7·0	13·0	0·7
Gateshead	103,775	33·1	35·5	20·6	3·10	0·03	0·49	0·18	0·10	0·64	0·17	1·49	0·50	208	10·3	73·4	6·4	6·2	0·3
Newcastle	223,021	41·5	31·7	21·4	2·84	0·01	0·57	0·11	0·13	0·62	0·30	1·10	1·00	190	12·0	85·1	8·2	17·5	0·7

Recorded and Corrected Death-rates per 1,000 Persons living in 33 Great Towns in 1898.

Towns, in the order of their Corrected Death-rates.	Standard Death-rate.	Factor for Correction for Sex and Age Distribution.	Recorded Death-rate, 1898.	Corrected Death-rate, 1898.	Comparative Mortality Figure, 1898.
England and Wales	19·15	1·0000	17·58	17·58	1,000
England and Wales, less the 33 Towns........	19·45	0·9845	16·78	16·52	940
33 Towns........	17·71	1·0813	19·03	20·58	1,171
Croydon	18·37	1·0424	13·89	14·48	824
Cardiff	17·16	1·1159	14·82	16·54	941
West Ham	17·75	1·0788	15·41	16·62	945
Portsmouth............	18·73	1·0224	16·30	16·67	948
Brighton	18·94	1·0110	16·91	17·10	973
Bristol	18·33	1·0379	17·20	17·85	1,015
Norwich	19·99	0·9579	18·96	18·16	1,033
Leicester	17·64	1·0855	16·93	18·38	1,046
Huddersfield	**16·47**	**1·1627**	**15·92**	**18·51**	**1,053**
Derby	17·36	1·1031	16·82	18·55	1,055
Burnley	16·67	1·1487	16·30	18·72	1,065
Plymouth	19·70	0·9720	19·54	18·99	1,080
Nottingham	17·81	1·0752	17·67	19·00	1,081
Birkenhead............	17·42	1·0993	17·44	19·17	1,090
Hull	18·23	1·0504	18·36	19·29	1,097
Halifax................	17·20	1·1133	17·87	19·89	1,131
London................	17·97	1·0656	18·68	19·91	1,133
Oldham	16·72	1·1453	17·58	20·13	1,145
Bradford	16·73	1·1446	17·60	20·14	1,146
Swansea	17·53	1·0924	18·57	20·29	1,154
Blackburn	17·05	1·1231	18·45	20·72	1,179
Preston...............	17·42	1·0993	19·35	21·27	1,210
Leeds	17·28	1·1082	19·21	21·29	1,211
Bolton	16·90	1·1331	19·38	21·96	1,249
Birmingham	17·33	1·1050	20·00	22·10	1,257
Gateshead	17·83	1·0740	20·61	22·14	1,259
Wolverhampton........	18·30	1·0464	21·27	22·26	1,266
Sheffield	17·22	1·1120	20·24	22·51	1,280
Newcastle	17·58	1·0892	21·42	23·33	1,327
Sunderland............	18·25	1·0493	22·63	23·75	1,351
Manchester	16·90	1·1331	21·89	24·80	1,411
Salford	17·03	1·1244	22·70	25·52	1,452
Liverpool......	17·44	1·0980	23·98	26·33	1,498

Crude or Recorded Death Rate is the rate of mortality calculated from population and registered deaths without reference to sex or age.

Standard Death Rate or Death Rate in Standard Population is the death rate at all ages calculated on the assumption that the rates at each twelve age periods were the same as in England and Wales during 1881-90.

The death rate at all ages during that period in England and Wales being 19·15 per 1000.

The Factor for Correction is the figure by which the crude death rate should be multiplied in order to correct for variations of age and sex distribution.

$$\left\{\frac{19{\cdot}15}{\text{Standard death rate}}\right\}$$

The Corrected Death Rate is the crude death rate multiplied by the factor for correction.

The Comparative Mortality Figure represents the comparison between the corrected death rate for each town and that recorded for England and Wales during 1897, which is taken as 1000.

Table shewing the rates of Mortality in Huddersfield for the year 1898, and **each of its quarters**, from all causes, from the seven Zymotic diseases, from Consumption and other lung diseases, and the ratio of the deaths in children under one to a thousand births in the same periods, with the corresponding death rates in the 33 great towns.

Quarter.	HUDDERSFIELD.				33 TOWNS.		
	All Causes.	Seven Zymotics.	Consumption, &c.	Children under one per 1,000 births.	All Causes.	Seven Zymotics.	Children. under 1.
I.	17·31	1·60	5·21	143	20·62	2·38	145
II.	15·83	0·47	4·51	94	17·07	1·88	133
III.	15·63	2·66	3·25	204	20·36	4·94	275
IV.	14·89	1·29	4·31	169	18·11	2·14	159
Year 1898	15·91	1·51	4·32	153	19·04	2·84	178

SIMILAR TABLE FOR 1897.

Quarter.	HUDDERSFIELD.				33 TOWNS.		
	All Causes.	Seven Zymotics.	Consumption, &c.	Children under one per 1,000 births.	All Causes.	Seven Zymotics.	Children under 1.
I.	17·84	0·95	5·66	124	19·24	1·69	139
II.	16·22	1·15	5·30	112	16·93	1·70	129
III.	13·77	2·02	2·57	132	21·25	5·75	278
IV.	18·08	1·78	5·42	159	19·05	2·34	160
Year 1897	16·48	1·47	4·74	132	19·12	2·87	177

Analysis of Death Causes.

All death causes are conveniently arranged under various headings, and the subjoined table, a summary of table VI. (Appendix) shews the death rates per 1,000 living in the Borough, according to the Registrar General's classification of diseases.

	1898	1897	1896	1895	1894
1. Specific Febrile Diseases—					
Zymotic	1·51	1·47	1·69	1·30	1·52
Malarial	0·18	0·10	0·10	0·51	0·11
Venereal	0·02	0·02	0·04	0·12	0·05
Septic	0·12	0·11	0·11	0·13	0·13
2. Parasitic Diseases	..	..	..	..	..
3. Dietic Diseases	0·08	0·01	0·05	0·09	0·02
4. Constitutional Diseases	2·91	3·68	3·27	3·60	3·44
5. Developmental Diseases	1·68	1·29	1·40	1·39	1·29
6. Local Diseases—					
Nervous System	2·05	2·06	2·25	2·57	1·96
Circulatory ,,	1·40	1·70	1·29	1·02	1·24
Respiratory ,,	3·17	3·09	3·64	3·16	3·03
Digestive ,,	0·95	1·07	0·97	1·00	0·94
Urinary ,,	0·49	0·69	0·57	0·42	0·50
Reproductive ,,	0·10	0·15	0·14	0·11	0·12
Bones and Joints	0·06	0·08	0·06	0·10	0·04
Integumentary System	0·02	0·04	0·02	..	..
7. Violence	0·56	0·45	0·47	0·45	0·39
8. Ill-defined and not specified causes	0·63	0·47	0·70	0·15	1·13

The number of deaths from the various Zymotic Diseases is slightly higher than last year, there having been 154 deaths as compared with 149. Of this number Measles caused 32 deaths, which is six more than during the previous year. We have been suffering practically throughout the whole of the year from an epidemic of Measles which commenced in the latter part of 1896. It has not been considered necessary to close the elementary schools on account of this disease, but we have continued to receive from the Head Teachers of schools notifications from time to time of cases of illness, which they have reason to suspect may be of an infectious character. The homes of these children are then visited, and printed directions left, indicating how long the children affected by the disease and those living in the house are to be kept away from school. I am pleased to say that since sending out the following circular to the head teachers of the elementary schools, they have been of considerable assistance in this matter, and I must here thank them for such help rendered. Altogether during the nine months of the year since this system was adopted we have received notifications of 758 absentees from the elementary schools who when visited have been found to be suffering from Measles, Chicken Pox, or Whooping Cough, and I am pleased to say that many of the Head Teachers are requiring a certificate of freedom from Infection before re-admitting such children to their schools, especially as this certificate can be obtained simply on application at the Health Department.

I certainly think that the plan of leaving instructions for the guidance of parents in isolating their children when suffering from Measles, and those (supposed to be) minor ailments, is having the desired effect in educating the popular mind up to the fact that Measles is not the simple affection it is popularly supposed to be, but is in reality a dangerous infectious disease, for we find that during this past year Measles alone has occasioned about as many deaths as Scarlet Fever, Diptheria, and Typhoid Fever combined.

SANITARY DEPARTMENT.

Dear Sir or Madam,

In view of the fatalities occurring among children of School age from the various infectious diseases, and also knowing how seriously any epidemic of this character affects the school grant, I am instructed by the Health Committee of this Corporation to ask your kind assistance in checking the spread of the various infectious diseases, especially by the following means:—

(1) That you will inform me at the earliest possible moment when you become aware that any one child is absent from school from any illness which is suspected to be of an infectious character.

(2) That other members of the same family, or in the same house attending school should be sent home.

(3) That none of these children should be re-admitted to school until they present a certificate from me to the effect that in my opinion they are now free from infection. This certificate will be granted free on application at my office.

On receipt by me of your notification of any such cases (forms for which are enclosed herewith) I shall have the house visited, and if the case is found to be one of an infectious character, full directions left with the parents as to isolation, &c. of the patient. I shall be pleased to certify for each individual case to you under Clause 101* of the Education Code, so that you may be under no disadvantage whatever in regard to your grant. Of course you will understand that I shall only be able to certify in this way from the date when your notification reaches me up to the date when my certificate of freedom from infection is given, therefore it will be incumbent upon you to conform to both of these requirements.

I trust that by adopting this means throughout the whole of the Borough we may in some measure be able to check the spread of infectious disease. If it is necessary to bring this matter before your School Managers I shall be glad if you will kindly do so, and take their instructions upon the matter at the earliest opportunity.

The infectious diseases referred to include smallpox, scarlet fever, scarlatina, diphtheria, croup, other continued fevers, and especially measles, chicken pox, and whooping cough.

Thanking you for your kind assistance in the past, and trusting to receive a continuance of the same, so that this help may be of a mutual character.

I am,

Yours faithfully,

ERNEST G. ANNIS,

Medical Officer of Health.

Scarlet Fever. During the year we have received notifications of 344 cases of this disease amongst which there have been 10 deaths, 322 of the cases notified have been removed for treatment to the Infectious Diseases Hospital, Birkby, and have resulted in 6 deaths, whilst of the 22 cases left at home, 4 have resulted in a fatal issue. Of course it is only right to state that in some of these instances the Medical man is not called in until the patient is in a moribund condition and all treatment is out of the question. It will thus be seen that we have isolated in the Hospital 93% of the cases notified during the year, which is exactly the same percentage as the cases isolated during the previous year. I have again continued the practice of making an inspection of the scholars attending our elementary schools, whenever a run of two or three cases of infectious disease amongst children attending the same elementary school has occurred, in this way the majority of the schools have been visited, and in some cases on several occasions. These inspections have often been rewarded by finding a child attending school suffering from Scarlet Fever in its desquamating stage.

We have not yet commenced occupation of the Sanatorium at Mill Hill, but the official opening of the same took place at the end of October.

A full description of this Sanatorium with illustrations of same will be found contained herein.

Table shewing the number of cases of **Scarlet Fever** known to have existed in Huddersfield, during the years 1889—1893, and 1894—1898 with cases heard of in the several quarters of these years, and the deaths registered from the same disease; also the average cases and deaths per quarter in the five years 1889—1893, and 1894—1898.

Quarters.	1889		1890		1891		1892		1893		Average of five years 1889-1893.		1894		1895		1896		1897		1898		Average of five years 1894-1898.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
I.	72	3	29	1	46	4	71	3	81	4	60	3	112	8	103	6	94	7	146	5	121	6	115	6
II.	119	6	28	1	76	7	100	6	188	6	102	5	107	2	132	6	123	7	152	8	97	2	122	5
III.	107	15	73	3	113	11	102	6	130	6	105	8	116	4	149	6	127	3	190	11	76	2	132	5
IV.	57	2	71	2	106	8	81	3	180	9	99	5	127	9	155	2	112	2	170	9	50	..	123	5
	355	26	201	7	341	30	354	18	579	25	366	21	462	23	539	20	456	19	658	33	344	10	492	21

For death rate, see Table VII. in Appendix.

The following statement of the various occupations followed by the parents of Scarlet Fever patients afford some idea of the many ways in which the infection of Scarlet Fever may be carried.

Brushmakers	4
Boot and Shoe Makers	1
Caretakers	3
Charwomen	3
Clerks, Warehousemen and Teachers	14
Colliers	2
Engineers and Mechanics	28
Joiners	9
Ministers, Doctors, Insurance Agents, Architects, and Solicitors	11
Manufacturers	7
Millhands—Cotton	3
Woollen	34
Dyers	7
Out-door Workers—Labourers	29
Coachmen, Teamers & Farmers	12
Policemen, Postmen & Tram-guards	4
Masons and Delvers	7
Painters and Plasterers ...	6
Plumbers	3
Publicans	5
Printers	2
Shopkeepers and Newsagents, &c.	30
Smith	1
Tailors	5
Travellers	2
Women Householders	10
No Occupation stated...	20
	262

The 344 cases notified occurred in 262 houses as follows:

One case each in	193	houses	...	193 cases
Two cases ,,	57	,,	...	114 ,,
Three ,, ,,	11	,,	...	33 ,,
Four ,, ,,	1	,,	...	4 ,,
Five ,, ,,	—	,,	...	— ,,
Six ,, ,,	—	,,	...	— ,,
	262			344

Diphtheria. 46 cases of this disease have been notified, 13 being in patients under 5 years of age, 33 in patients over 5 years of age. These cases have resulted in 14 deaths, which is an excessive death rate, being 39% of the whole, and somewhat more than during the previous year when it was 37·5%, although much better than in 1896 when the case mortality was 60·5%. Nine cases of this disease occurred in the Central District, resulting in 2 deaths, 9 in Almondbury resulting in 3 deaths, 7 in Lockwood with 1 death, 5 in Fartown with 2 deaths, 4 in Dalton with 2 deaths, and 4 in Marsh with no deaths.

Whooping Cough. Whooping cough has been the assigned cause of death in 11 cases, 4 occurring in Dalton, 3 in Huddersfield Central, 2 in Almondbury, and 1 each in Fartown and Lindley.

Again, in reference to this disease, as well as Measles, much has been done to limit its spread by the system of notification by the head Teachers of elementary schools, resulting in visit and inspection by members of our staff.

Typhoid Fever. 77 cases of Typhoid Fever have been notified during the year, 3 being in children under 5 years of age, the remaining 74 being over that age. This number is slightly larger than the number notified last year, the increased number chiefly occurred in the Central district, where 31 cases were notified. In the early part of the year we had 2 or 3 notifications coming from this neighbourhood, and on making our usual enquiries we found that the milk supply was chiefly from a common source. Naturally this supply was at once suspected as being the origin of the disease. The whole of the surroundings of the dairy supplying milk to the neighbourhood, the people in connection with the dairy, and also the various farms some few miles away from which places the dairy received their milk supply were thoroughly inspected, but yet we were unable to find any likely source of the infectious material, so that for the time we were somewhat nonplussed. During the course of the next fortnight however, I was asked to see a suspicious case of illness in an adult male living at a private house in the near neighbourhood. At the consultation with the patient's Medical man I formed the opinion that the case was one of Typhoid Fever of a very serious type. From the history I gathered that this patient kept a lockup shop for the sale of fried fish and other similar delicacies in the street from which we had received several of our other cases, and further that this patient for some six or eight weeks previously had been ailing and suffering from various minor symptoms attended with diarrhœa, which lead me to suppose that during this period he had been suffering from a mild attack of Typhoid Fever in what might be called an ambulatory form.

On making an inspection of this shop we found that the Sanitary arrangements were anything but satisfactory, and I think there is no doubt although it was not admitted by the patient, that whilst he was attending to his customers he had on several occasions made use of the cellar instead of going outside to the closet, which cellar was also the store for the fish, flour, fat, potatoes, &c. used in his business, and also the place where they were prepared for sale.

We had the whole of the stock found upon the premises destroyed, the whole place thoroughly disinfected, cleansed, and put into a more sanitary condition, and I am pleased to say that this appeared to bring about the end of the localized epidemic in that district. Occurrences of this character are to my mind very strong proof that some sort of registration with its attendant inspection of these fish frying, and similar places would be attended with great benefit to the community at large. I recommended the Sanitary Committee to endeavour to have such a Clause inserted in the last Improvement Bill we promoted in Parliament, but this course was not adopted, I shall accordingly welcome the Public Health Amendment Act which has among its provisions a clause of this character. Of the 77 cases notified 48 were admitted to our Infectious diseases Hospital at Birkby, for treatment, resulting in 5 deaths, whilst 5 other deaths occured amongst the remaining 29 cases treated outside.

Table shewing the number of cases of **Enteric Fever** known to have existed in Huddersfield during the two periods 1889—1893, and 1894—1898, with cases heard of during the several quarters of the years of these periods, and the deaths registered, also the average cases and deaths per quarter in the **five** years 1889—1893, and 1894—1898.

Quarters.	1889		1890		1891		1892		1893		Averages of five years 1889-1893.		1894		1895		1896		1897		1898		Averages of five years 1894-1898.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
I.	10	1	14	9	4	1	6	1	10	1	9	3	5	2	1	..	5	..	8	4	14	2	7	2
II.	14	4	2	3	5	4	1	1	3	..	5	2	5	3	13	3	15	2	6	1	6	1	9	2
III.	16	4	20	5	19	4	10	3	21	4	17	4	11	1	19	2	33	7	14	1	29	4	21	3
IV.	10	1	26	6	10	6	5	1	23	8	15	4	10	5	27	1	17	4	36	10	28	3	23	4
Year.	50	10	62	23	38	15	22	6	57	13	46	13	31	11	60	6	70	13	64	16	77	10	60	11

In comparing these figures we must not forget the increase of population.
For the death rates see Table VII. in Appendix.

Small Pox. Two cases of this disease were notified during the year, both of them were removed to the Hospital for treatment, and were discharged well. The other members of the families concerned, and the persons who were known to have been in contact with the patients previous to their removal to the Hospital, were kept under supervision, and the parents, and intimate relations of the second patient were detained in the cottages at Mill Hill, until the period of incubation had expired, but no other case arose in any way.

The source of infection of the first case appeared to be at Leeds, the patient being a Medical Student attending the college there.

In the case of the second patient, the source was extremely difficult to locate, probably it arose in connection with her work as a rug weaver.

Appended are the returns supplied to me by Mr. Rigby, Clerk to the Guardians, respecting the number of vaccinations performed in the district, and I am informed that up to December 31st, 1898, 71 exemption certificates had been granted.

Return made on or before the 8th February, 1899, by Mr. Broadhead, Vaccination Officer—District of the Huddersfield Union, respecting the Vaccination of Children whose Births were Registered in his District.

	Registration Sub-Districts comprised in the Vaccination Officer's District.	Number of Births returned in the "Birth List Sheets."	Number of these Births duly entered in Columns 10, 11, and 13 of the "Vaccination Register," (Birth List Sheets), viz:—					Number of these Births remaining unentered in the "Vaccination Register," on account (as shown by Report Book) of			Number of these Births neither duly entered in the "Vaccination Register," (columns 3, 4, 5, and 6, of this Return) nor temporarily accounted for in the Report Book (columns 8, 9, and 10 of this Return).
			Col. 10.	Col. 11.		Col. 13.	Number in respect of whom Certificates of Conscientious Objection have been received.	Postponement by Medical Certificate.	Removal to districts the Vaccination Officer of which has been duly apprized.	Removal to places unknown, or which cannot be reached, and Cases not having been found.	
			Successfully Vaccinated.	Insusceptible of Vaccination.	Had Small Pox.	Dead. Unvaccinated.					
Jan. 1 to Dec. 31, 1897.	Huddersfield ...	1099	971	2	...	90	2	1	6	14	13
	Almondbury ...	393	353	2	...	28	...	1	1	1	7
	Lockwood	504	434	3	...	53	...	...	1	5	8
	Total	1996	1758	7	...	171	2	2	8	20	28
Jan. 1 to June 30, 1898.	Huddersfield ...	551	434	...	...	42	4	1	...	1	69
	Almondbury ...	191	170	...	...	12	...	1	...	...	8
	Lockwood	286	237	2	...	27	...	...	...	1	19
	Total	1028	841	2	...	81	4	2	...	2	96

Diarrhœa. Diarrhœa occasioned 77 deaths in the whole of the Borough during last year, as compared with 33 deaths during the previous year, 66 of these being in children under 5 years of age and 11 in persons over 5 years of age. Of the total number of deaths 24 occurred in the Central, 11 in Marsh, 9 in Fartown, 2 Deighton and Bradley, 8 in Dalton, 2 in Almondbury, 12 in Lockwood, 2 each in Lindley and Longwood, and 5 in the Workhouse. In the respective quarters of the year we find that 2 deaths occurred in the first quarter, 1 in the second quarter, 58 in the third quarter, and 16 in the fourth quarter, thus again following out the general rule, that when the temperature of the earth about four feet below the surface reaches 56 degrees Fah. then deaths from Diarrhœa begin to be frequent. I have again noted the fact that several deaths from Diarrhœa occurred in enclosed yards, and that these yards were very frequently not paved in any way, being merely flagged near the doorstep, and the remainder of the yard an open soil area, which soil is often worked up into numerous pools and puddles by the rain, and also the slop waters which are thrown over the surface of the ground by the occupants of the adjoining houses. We have served notices upon several owners of these yards, requiring them to properly drain and then cover the surface with an impervious covering, and I am pleased to say that in one or two instances this has been done, but not in the majority, and steps will be taken by the Sanitary Committee to see that this necessary work is properly carried out.

Respiratory Diseases, such as Bronchitis, Pneumonia, and Pleurisy have occasioned 315 deaths during the year, which is 3 deaths above the number of last year, so that our relatively low death rate in respect to deaths from these various diseases is still continued.

Heart Disease is credited with 130 deaths which is a similar number to previous years.

Cancer and Malignant Disease. The deaths from this class of disease are somewhat less than for several years past.

There have been 80 deaths during the period, giving a death rate of ·78 per 1,000, which is lower than any year since 1892, which will be seen from the following table, and is lower than the average of the past 10 years.

The following are the number of deaths yearly ascribed to Cancer in one form or another since 1881.

Year.	Population.	Number of deaths from Cancer.	Death rate per 1,000 of the population.	
1881	82,113	26	0·32	0·54
1882	83,271	32	0·51	
1883	84,450	48	0·57	
1884	86,004	57	0·67	
1885	87,327	54	0·62	
1886	88,670	50	0·57	0·68
1887	90,034	57	0·63	
1888	91,419	70	0·77	
1889	92,825	58	0·62	
1890	94,253	75	0·79	
1891	95,656	78	0·81	0·84
1892	96,599	75	0·78	
1893	97,552	80	0·82	
1894	98,511	82	0·83	
1895	99,482	95	0·96	
1896	100,463	88	0·86	
1897	101,454	94	0·93	
1898	102,454	80	0·78	

Tabes Mesenterica, Tubercular Meningitis, Phthisis, (Consumption) and other forms of Tuberculosis. The deaths from this class of disease were 279 in number, which is an increase upon last year of 57 deaths. This is somewhat disappointing no doubt in view of the efforts we are making to check the spread of this class of infectious disease. We are endeavouring to deal as far as possible with the source of this disease in reference to our Meat and Milk supply, by more efficient supervision, and a higher standard of requirements for the various Cowsheds, Dairies, and Milkshops in the Borough, and also by as complete an inspection of the Meat supply as the staff of Inspectors will warrant.

I beg again to state the fact of the continuance of the good feeling evinced by the Butchers of the town towards the Health Department.

We further endeavour to deal with this disease by offering disinfection whenever we know of cases of this sort of illness, and whenever a death has occurred from this disease the various district Registrars of Births and Deaths very kindly give the person registering such death a circular letter signed by the Medical Officer of Health, offering to remove the Bedding and other infected goods for disinfection in the steam disinfector, and also disinfect the room and premises occupied as far as possible, and I am pleased to say that an increasing number of friends of persons who have died from this disease are availing themselves of this privilege.

On the occasion of the opening of the Sanatorium, in October last, by Sir W. H. Broadbent, M.D., Bart., he very kindly further assisted in the education of the public in respect to the cause and means of preventing this class of disease by a lecture on the subject at the Technical College. Copies of this lecture were printed and distributed to the majority of the households in the Borough, and there is no doubt it has been of much assistance in the public education concerning the matter.

The following table shews the different trades or occupations of those who have succumbed to this disease, affecting the lungs, during the year 1898, also analysis of some of the previous family histories in relation to this disease, with the different housing conditions, and the quarterly incidence thereof.

Phthisis.

Occupation.	Males.	Females.	Total.
Domestic Occupation	1	15	16
Millhands, not classified ...	15	10	25
Stone Masons and Quarrymen...	10	—	10
Labourers	6	—	6
Children at home	3	3	6
Clerk	1	—	1
Dyer	1	—	1
Mechanics	4	—	1
Scholars	2	—	2
Dressmakers & Machinists ...	—	5	5
Rug Weaver	—	1	1
Winders, Knotters & Burlers ...	—	4	4
Shop Keeper	1	—	1
Cashiers & Bookkeepers ...	3	—	3
Hawkers	4	—	4
Tradesmen	18	—	18
Salesman and Warehousemen...	3	—	3
No Occupation stated	3	13	16
	75	51	126

Among the 126 deaths it was found that in 62 families deaths from the same disease had previously occured thus :—

In 38 families 1 death
,, 15 ,, 2 deaths
,, 7 ,, 3 ,,
,, 2 ,, 4 ,,

4 deaths occurred in 1 roomed Houses
19 ,, ,, 2 ,, ,,
47 ,, ,, 3 ,, ,,
15 ,, ,, 4 ,, ,,
17 ,, ,, 5 ,, ,,
13 ,, ,, Houses over 5 Rooms
1 ,, ,, Infirmary
10 ,, ,, Workhouse

1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
29	29	34	34

Hospital.

The following tables shew that of the 344 cases of Scarlet Fever notified or otherwise heard of in the Borough during the year, 322 or 93% of the cases were removed to the Hospital for isolation and treatment, which is the same proportion as during the previous year. There were 41 cases of Scarlet Fever in the Hospital on January 1st, 1898, and 22 remained under treatment at the end of the year, whilst during that period six deaths occured, giving a case mortality of 1·6 per cent. which is a very low rate indeed.

We also removed to the Hospital for treatment 48 out of the 77 cases of Typhoid Fever notified, one case remained in the wards from 1897, eight patients were still under treatment at the end of the year and there had been 5 deaths during the year, giving a case mortality of 10·4 per cent. as compared with 25% last year.

From the table shewing the case mortality amongst home and hospital treated cases respectively of Scarlet and Typhoid Fevers, it will be noted how great a difference exists, for the average deaths of home treated Scarlet Fever patients are proportionately 5 times greater than those treated in hospital, and about twice as many amongst home treated Typhoid Fever cases.

It was only found necessary to bring pressure to bear in the shape of a magistrates order for the removal of one patient to the Hospital during the year, where in the opinion of the Medical Officer of Health there was not sufficient and satisfactory accommodation at the home of the patient, for the proper treatment and isolation of the case. Thus it will be seen how ready people are to make use of the accommodation provided for the isolation and treatment of their sick friends.

Analysis of Infectious Cases Reported, Year 1898.

DISTRICTS.	Small Pox.	Scarlet Fever.	Diphtheria.	Mem. Croup.	Enteric Fever.	Erysipelas.	Puerperal Fever.	Choleraic Diarrhœa.	Doubtful.	AGES.	TOTALS.
Central Wards	..	21	2	..	2	1	..	..	1	Under 5..	27
	1	69	7	..	29	4	1	1	1	Over 5..	113
Marsh	..	13	1	..	1	..	..	..	..	Under 5..	15
	..	24	3	..	4	1	..	..	..	Over 5..	32
Fartown	..	17	2	..	..	..	..	..	..	Under 5..	19
	..	35	3	..	7	..	1	..	..	Over 5..	46
Deighton and Bradley....	..	2	1	..	..	..	..	..	..	Under 5..	3
	..	2	2	..	..	..	..	..	..	Over 5..	4
Dalton	..	5	1	..	..	..	..	..	..	Under 5..	6
	..	11	3	..	6	3	1	..	..	Over 5..	24
Almondbury ..	..	44	3	1	..	..	..	..	..	Under 5..	48
	1	47	6	..	10	6	2	..	..	Over 5..	72
Lockwood	..	11	2	..	..	..	..	..	2	Under 5..	15
	..	23	5	..	7	1	..	..	4	Over 5..	40
Lindley	..	1	..	..	..	..	..	..	..	Under 5..	1
	..	5	3	..	5	1	1	..	..	Over 5..	15
Longwood	..	1	1	..	..	..	..	..	..	Under 5..	2
	..	6	..	..	4	2	..	..	..	Over 5..	12
Infirmary	..	1	..	..	..	..	..	..	..	Under 5..	1
	..	4	1	..	..	..	..	..	..	Over 5..	5
Workhouse	..	..	..	..	..	..	..	..	..	Under 5..	..
	..	2	..	..	2	..	..	..	..	Over 5..	4
Whole Borough	..	116	13	1	3	1	..	..	3	Under 5..	137
	2	228	33	..	74	18	6	1	5	Over 5..	367

The following is the Report of Patients in the Hospital for 52 Weeks ended Saturday, 1st January, 1899.

	Small pox.	Scarlet Fever.	Diphtheria.	Enteric, or Typhoid Fever.	Other, or doubtful cases.	Total.
Number in hospital on Saturday, 1st of January, 1898	...	41	...	1	...	42
Number since admitted	2	322	...	48	5	377
Number discharged	2	335	...	36	5	378
Number Died	...	6	...	5	...	11
Number remaining in Hospital ...	...	22	...	8	...	30

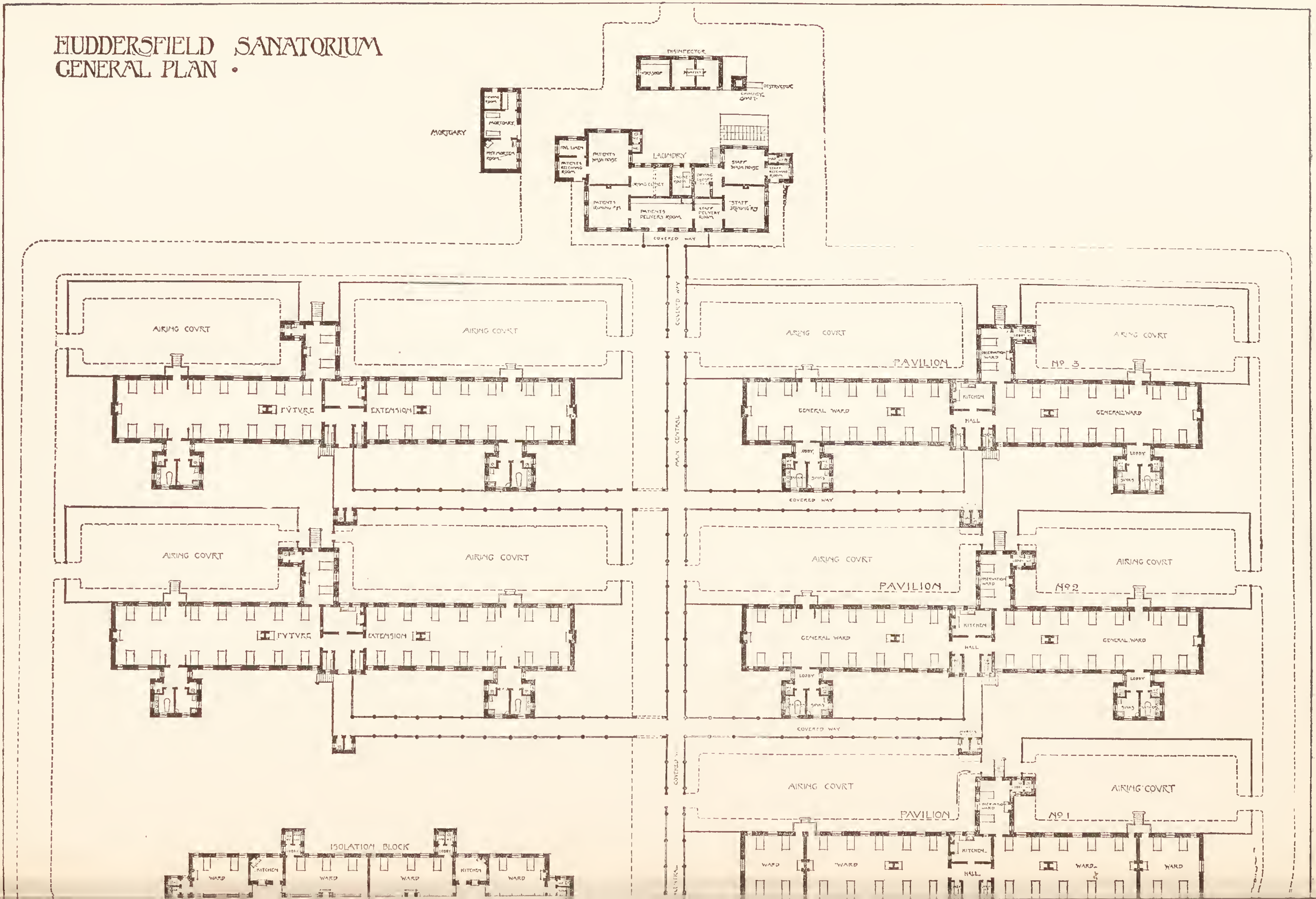
Table shewing the number of cases of Infectious Disease notified and deaths therefrom in the whole of the Borough, during the period 1883-1898.

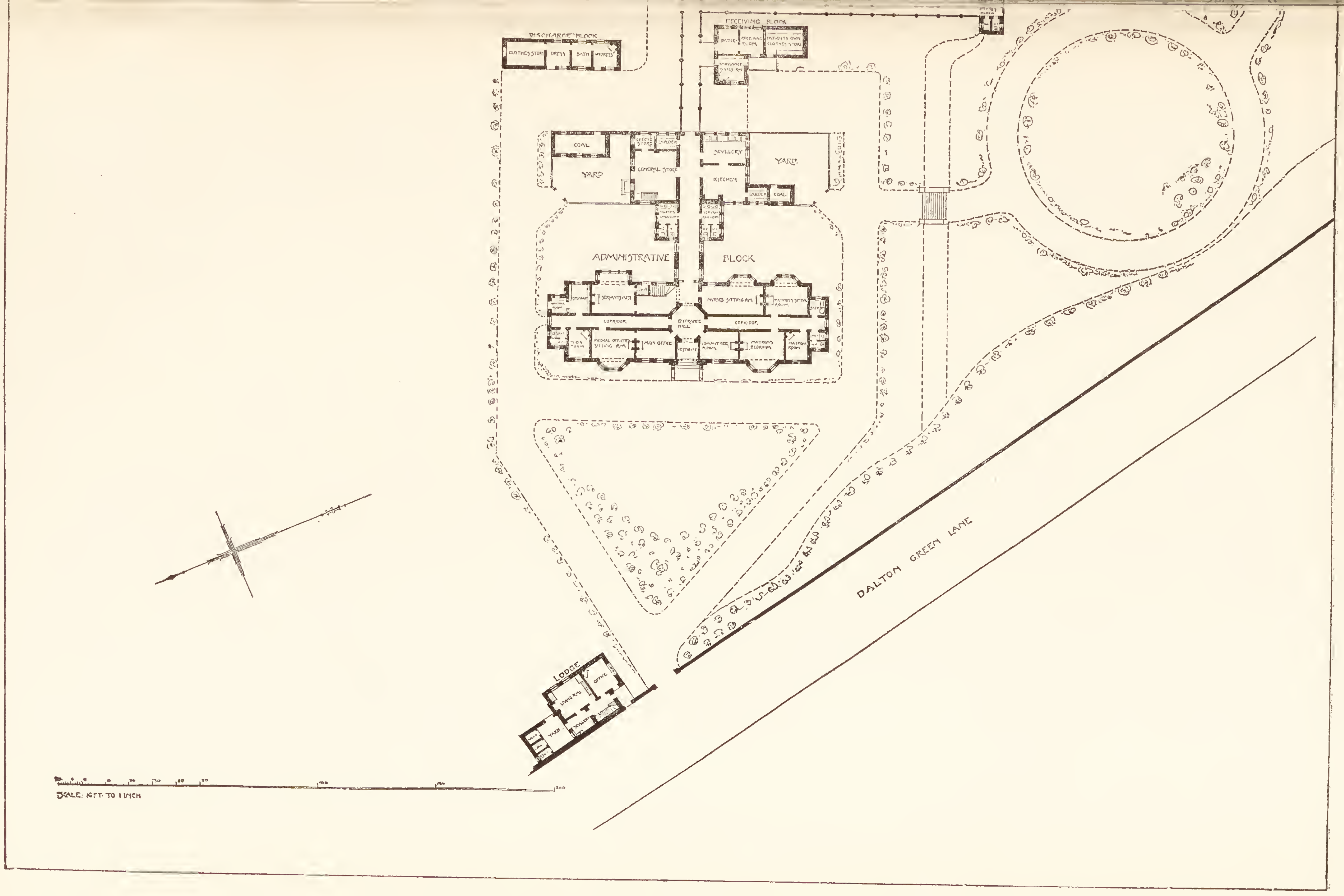
YEAR.	Estimated Population.	Small Pox Cases.	Deaths.	Scarlet Fever Cases.	Deaths.	Diphtheria Cases.	Deaths.	Typhus Fever Cases.	Deaths.	Enteric Fever Cases.	Deaths.
1883	84450	1	...	91	7	8	3	...	...	41	13
1884	86004	...	...	123	7	8	4	...	...	87	12
1885	87327	3	...	251	11	4	4	...	...	66	10
1886	88670	39	...	369	33	29	12	...	...	45	12
1887	90034	...	...	526	31	83	41	...	...	48	9
1888	91419	15	2	326	26	40	14	...	...	56	12
1889	92825	...	...	354	26	40	12	...	...	50	10
1890	94253	5	1	204	7	21	5	1	..	62	24
1891	95656	...	...	341	30	19	5	...	...	38	15
1892	96599	16	1	354	18	21	7	...	...	22	6
1893	97552	48	2	579	25	13	3	...	...	57	13
1894	98511	5	...	462	23	36	27	1	...	31	11
1895	99482	...	...	539	20	34	19	...	...	60	6
1896	100463	1	...	456	19	43	26	...	...	70	13
1897	101454	...	...	658	33	56	21	1	...	64	16
1898	102454	2	...	344	10	46	14	...	...	77	10

Table shewing the number of cases of Scarlet and Typhoid Fevers reported, treated at Home or in Hospital, with the respective case mortality during the years 1890-1898.

Year.	Disease.	Total.	Home Cases.	Hospital Cases.	Case Mortality per cent.	
					Home	Hospital.
1890	Scarlet Fever	204	35	169	5·7	2·9
1891	,,	341	45	296	28·9	5·7
1892	,,	354	32	322	9·4	4·6
1893	,,	579	68	511	11·8	3·3
1894	,,	462	60	402	11·7	3·9
1895	,,	539	50	489	22·0	1·8
1896	,,	456	41	415	17·1	2·9
1897	,,	658	48	610	25·0	3·4
1898	,,	344	22	322	18·2	1·8
				Average	16·6	3·3
1890	Enteric Fever	62	34	28	47·1	28·6
1891	,,	38	18	20	61·1	20·0
1892	,,	22	10	12	40·0	16·7
1893	,,	57	47	10	21·3	30·0
1894	,,	31	25	6	40·0	16·7
1895	,,	60	49	11	10·2	9·1
1896	,,	70	52	18	23·1	5·5
1897	,,	64	40	24	25·0	25·0
1898	,,	77	29	48	20·7	8·3
				Average	32·0	17·7

HUDDERSFIELD SANATORIUM
GENERAL PLAN.




DISCHARGE BLOCK
CLOTHES STORE
DRESS
BATH
UNDRESS
RECEIVING BLOCK
BATHS
RECEIVING ROOM
PATIENTS OWN CLOTHES STORE
AMBULANCE
COAL
YARD
CHEESE STORE
LARDER
GENERAL STORE
SCULLERY
KITCHEN
YARD
LARDER
COAL
NURSES LAVATORY
SERVANTS LAVATORY
ADMINISTRATIVE BLOCK
SERVANTS HALL
NURSES SITTING RM
MATRONS SITTING ROOM
BATH
WAITING ROOM
CORRIDOR
ENTRANCE HALL
CORRIDOR
M.O.S ROOM
MEDICAL OFFICERS SITTING RM
M.O.S OFFICE
VESTIBULE
COMMITTEE ROOM
MATRONS BEDROOM
MATRONS ROOM
DALTON GREEN LANE
LODGE
OFFICE
LIVING RM
SCULLERY
YARD
0
10
20
30
40
50
100
150
200
SCALE: 16FT· TO 1 INCH

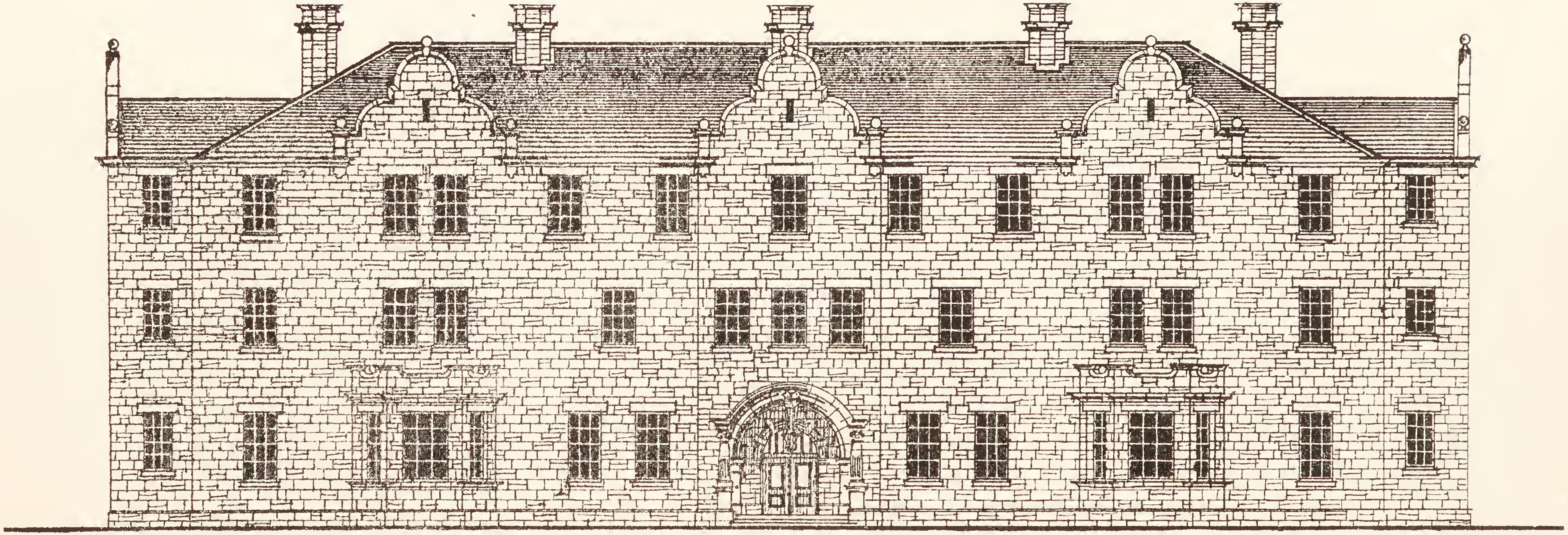
HUDDERSFIELD SANATORIUM.

After a long period of preliminary discussion and due consideration of various sites, the present position was considered to be the one most suitable. The foundation stone of the splendid pile of buildings was laid during the Mayoralty of Ald. J. Lee Walker, J.P., by Ald. W. H. Jessop, J.P., the then Chairman of the Health Committee, on June 10th, 1896, and the official opening ceremony was performed during the Mayoralty of Ald. W. H. Jessop, J.P., by Sir William H. Broadbent, M.D., Bart., brother of Benjamin Broadbent, Esq., M.A., the present Chairman of the Health Committee, on October 22nd, 1898.

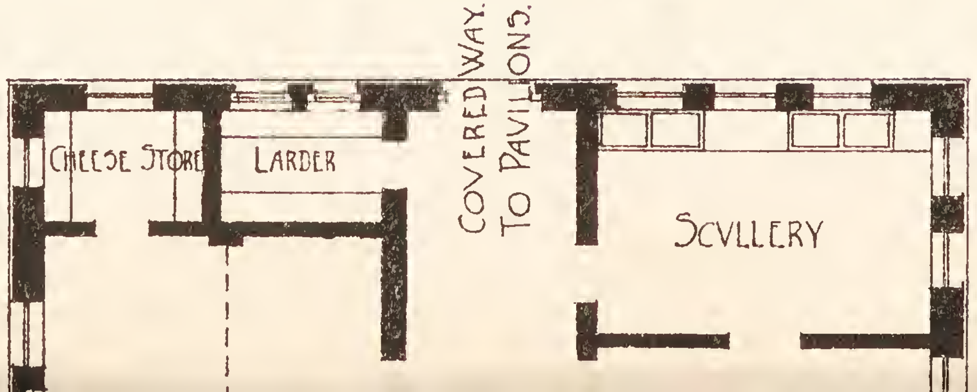
The site of the Hospital is about two miles from the centre of the Town in a direct line, and has an area of about 18 acres in extent. It is somewhat of a triangular shape with the apex pointing about due North, and is bounded by good roads on two sides, namely the Albany Road on the South East and the Dalton Green Lane on the West side, whilst a small stream called the Lees Beck is the boundary on the remaining or North Eastern side. Entering the grounds by the main entrance one finds immediately on the left hand side a substantial porter's lodge, containing an Office, which has telephonic communication with the rest of the Hospital buildings, and large living room and kitchen with bedroooms above for the porter. The ground on the left and to the rear of the Porter's Lodge are lying entirely open, thus obtaining a very pleasant outlook from the front of the administration buildings. The further portion of this land is available for the erection of a quarantine station, when such is considered necessary. On the inner side of the wall separating the grounds from the public road way a belting of shrubs has been planted. At the right of the entrance in front of the administration building the ground is laid out somewhat in the form of a triangle, with a sloping bank for shrubs and ever-greens. The administration block is built in Renaissance style and has a very good appearance. The main entrance is in the centre and opens directly into a fine entrance hall with Terrazzo pavement. On the right hand side are the Matron's rooms and office, and to the left hand the Medical Officer's rooms with the Committee room. The nurses' dining and sitting rooms being right and left at the back. The first floor containing 19 bed-rooms, linen closet, lavatories and bath rooms is arranged for nurses, the second floor having the same number of rooms and accommodation for servants. Passing along the main entrance on the right and left are placed the kitchen, scullery and the store rooms respectively. The administration block is connected by means of covered ways with the whole extent of the premises to the Laundry Block with branching covered ways to each pavilion. These covered ways are not entirely enclosed, having an open space at the side below of about 6in. and 2ft. at the top, with 5ft. 6in. screen at the side, thus enabling one to have the advantage of shelter in inclement weather and yet being not entirely enclosed. Passing still further along this main covered way we come immediately on the right to the receiving block, and on the left to the discharge block containing respectively the store-room, bath-room, patients receiving room and friends waiting room. We next come to the branching corridor which leads to the first pavilion.

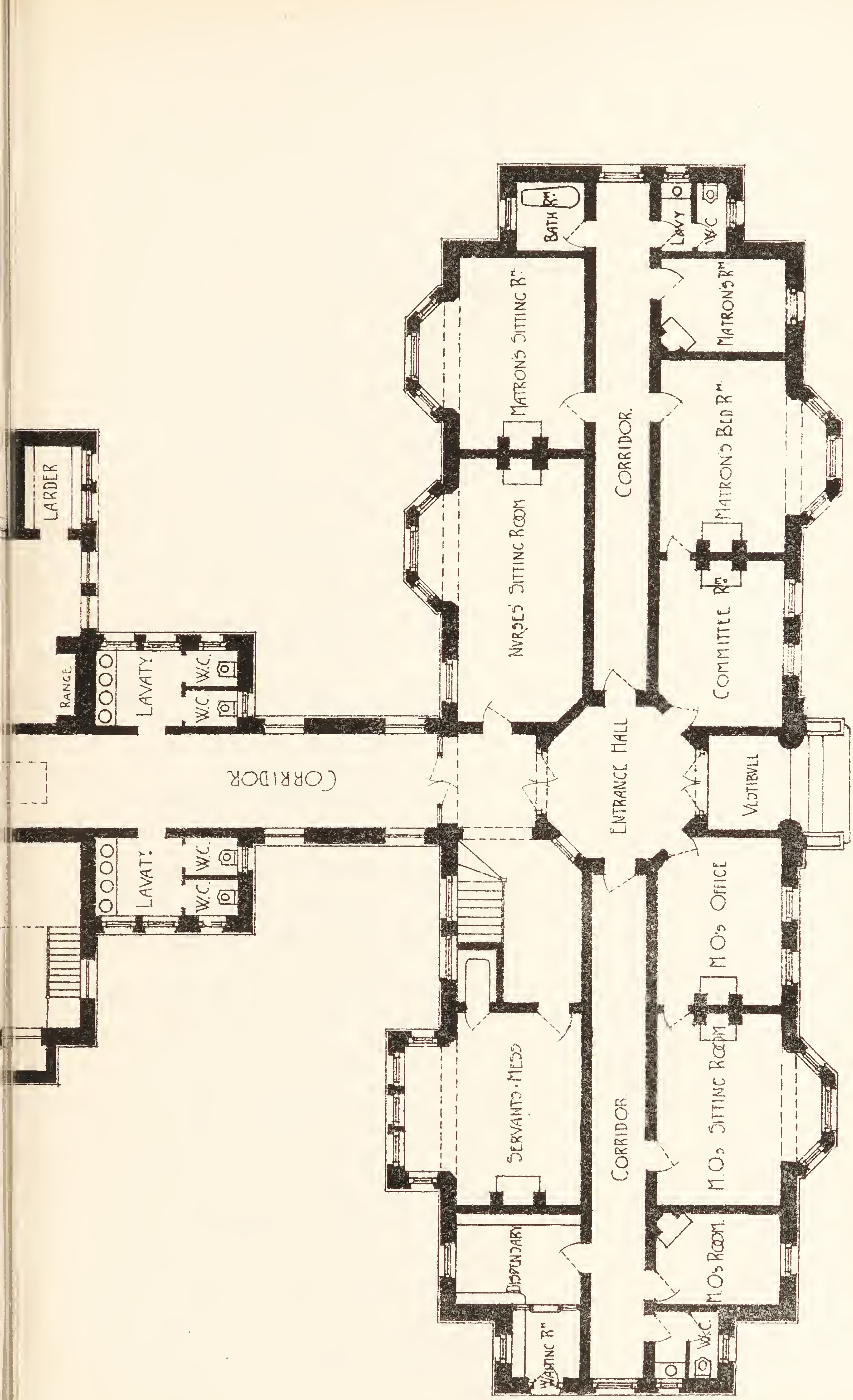
The pavilions are built in a rectangular form and are entered at the centre. Their axes run almost directly N.N.E. by S.S.W. thus allowing the sunshine to reach to the fullest extent to all the walls and foundations. The early morning sun reaching the South Eastern side windows whilst the late afternoon sun just reaches the opposite side walls. There is a distance of 71ft. between the Pavilions and 85ft. from the end of the pavilion to the boundary of the grounds. Between the pavilions the ground is asphalted and laid out as a play-ground for the patients. At the extreme end of the covered way is the Laundry Block, which is divided into two portions, one for the patients, one for the staff, and containing in each clean clothes delivering room, ironing room, drying room and laundry, and under-neath these buildings are the coal cellars

ADMINISTRATION BLOCK.



FRONT ELEVATION




LARDER
RANGE
LAVATY
W.C.
W.C.
CORRIDOR
LAVAT.
W.C.
W.C.
BATH RM
LAVY
W.C.
MATRON'S SITTING RM
MATRON'S RM
CORRIDOR.
MATRON'S BED RM
NURSES' SITTING ROOM
COMMITTEE RM
ENTRANCE HALL
VESTIBULE
M.O's OFFICE
SERVANTS MESS
M.O's SITTING ROOM
CORRIDOR.
DISPENSARY
M.O's ROOM.
WAITING RM
W.C.

and the boiler house. The disinfector is placed at the rear of this block and entirely distinct from the same. The mortuary block is built at the north side of the laundry block and also is entirely distinct.

It should be borne in mind that the several departments, *i.e.* Disinfector, Boilers and Engine, Laundry, Mortuary, Kitchen, Stores and accommodation for Nursing staff and Servants, are adequate for dealing with all the requirements both of patients and increased staff whenever it may be found necessary to complete the scheme of the whole hospital, by building the other two portion as shown on the sketch plan herein when the number of beds thus provided would be about as many again as at present.

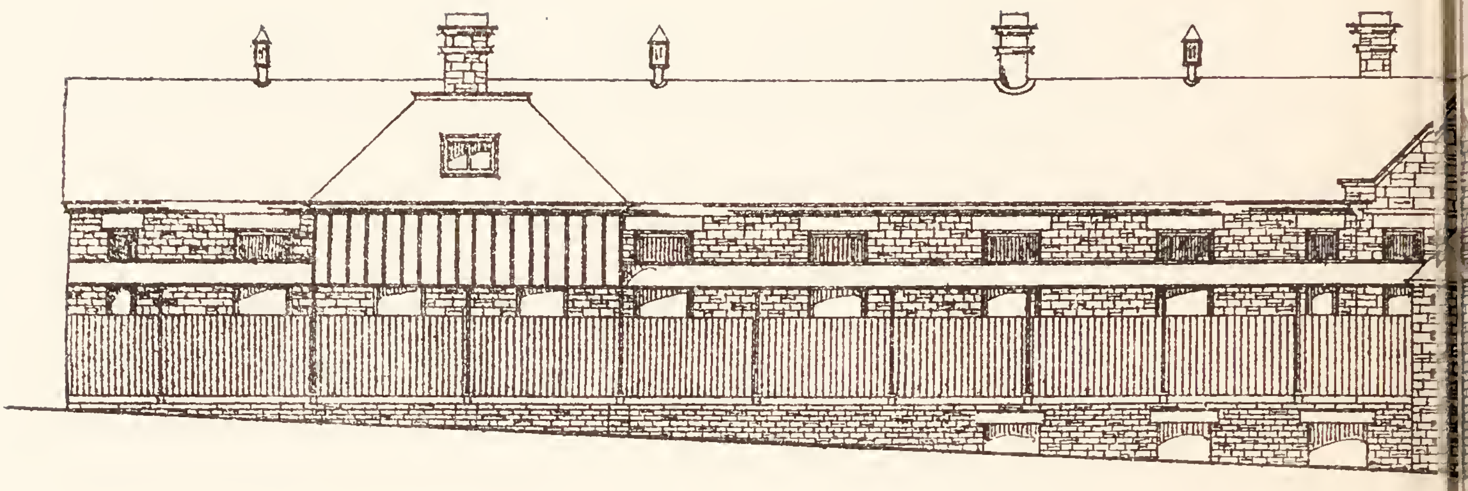
ADMINISTRATION BLOCK.—On either hand right and left are the Office and Committee Rooms respectively, these are furnished in a simple style indicative of the purpose for which they are required. The Matron and Medical Officer's Sitting Rooms on the right and left hand sides respectively of the main entrance are large airy rooms with bay windows having a splendid outlook on to the whole of the open part of the grounds. They are furnished in Walnut, upholstered in hair and leather cloth. The Matron's bedroom is at the back looking towards the pavilion. The Medical Officer's bedroom being on the front on the ground floor. Adjoining the Matron's sitting room is the small sewing room which will be used for the various processes of repairing and renewing the household linen required. This has a stained and varnished floor, and is simply furnished with table and chairs and a useful sewing machine. At the opposite end of the cross corridors will be found the Dispensary, fitted up with various dispensing bottles having indelible labels affixed to the same, and the various requisites for supplying the medical needs of the patients contained therein. Adjoining this is a small waiting room in which the nurses will be able to wait while their respective supplies of medicaments are being prepared. Passing through the folding doors we arrive at the Nurses' sitting and dining rooms, which are thus somewhat cut off from the front portion by these folding doors. They are nice airy rooms and well furnished, although carping critics might suggest that they are somewhat dark for their purpose. On the first floor are the nurses' bedrooms, on the second floor the servants' bedrooms with separate lavatory accommodation for each.

Kitchen and Scullery.—The Kitchen is fitted up with every modern appliance, having large fire range with baker's oven, steam heated closet and carving table, gas stove and two beef tea extractors, and is lighted by means of a large central glass covered lantern with side windows. The scullery adjoining contains a steam vegetable cooking apparatus, and also two steam jacketted pans for milk, &c. The steam is supplied direct from the boiler house by pipes laid the whole length of the main corridors giving off branches whenever required. The kitchen has been fitted and arranged to cook for 200 persons.

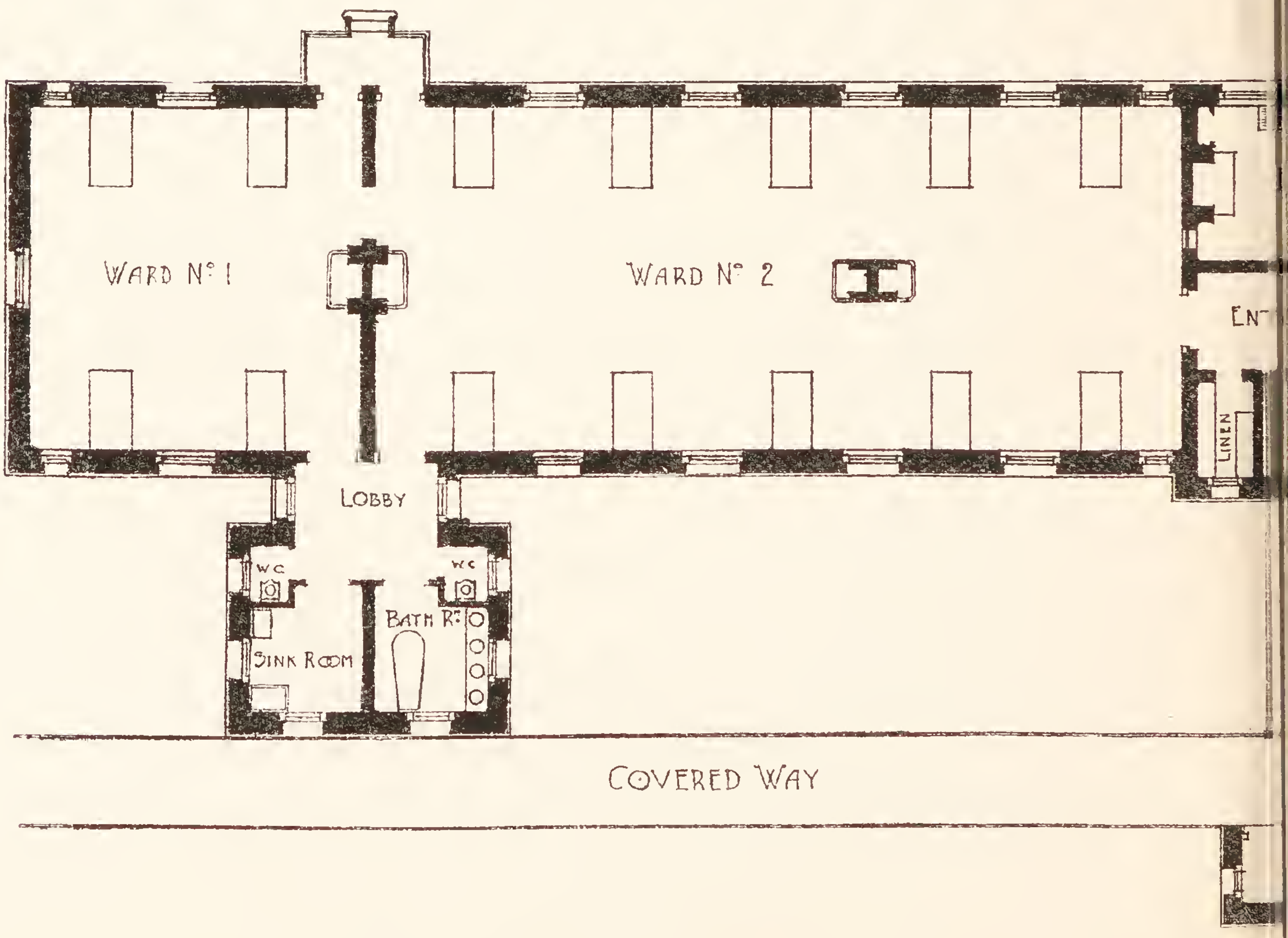
Receiving Block.—This block is the first building reached on passing along the corridor on the right hand side. Patients on being brought to the Hospital will be brought in the Ambulance to the door at the far side of this building, and there received under a glass covered verandah into the receiving room where any friends who have come with them will be able to take a last adieu for the time being. The patient will then be passed into the bath room, and thence being en-wrapped in warm blankets, and having been placed on a wheeled stretcher will be wheeled to the bed provided in the ward for this patient. There is also a clothes' store and friends' waiting room provided in this block.

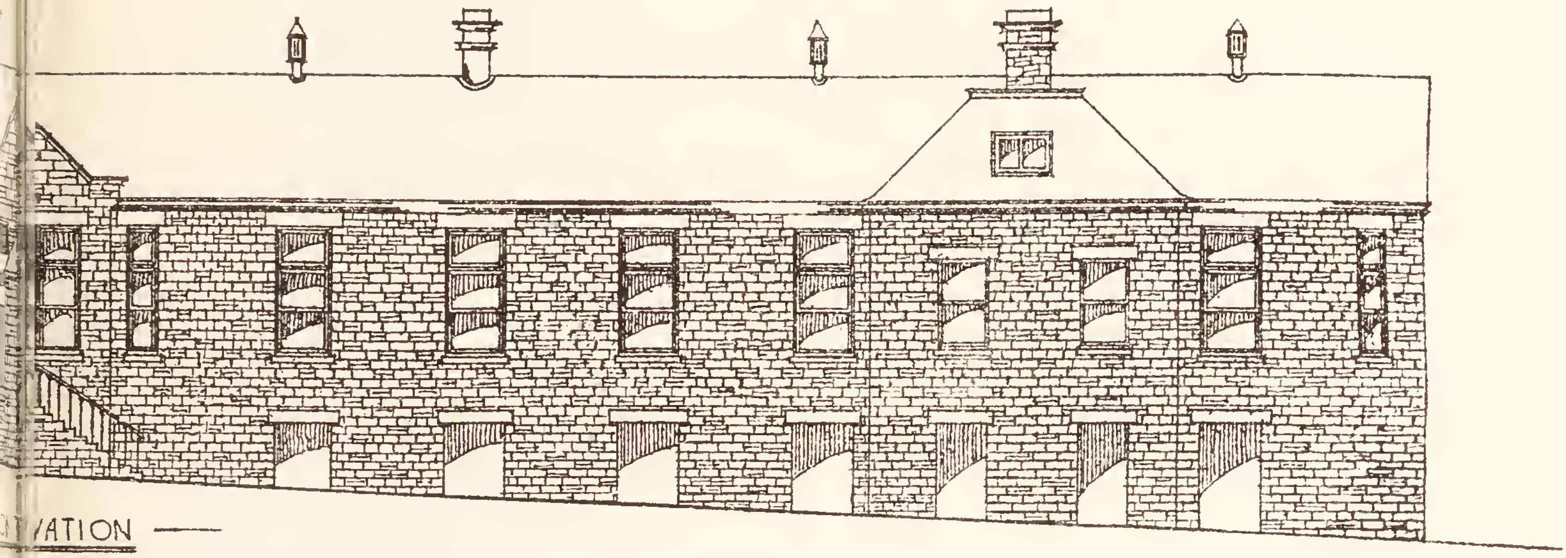
Discharge Block.—This block is immediately opposite the receiving block, but is not connected with the corridors by means of any covered way, thus endeavouring to eliminate the possibility of discharging any infectious germs along with the patient. It is fitted up in a similar way to the receiving block, except that the process will be gone through in the reverse order.

WARD PAVIL

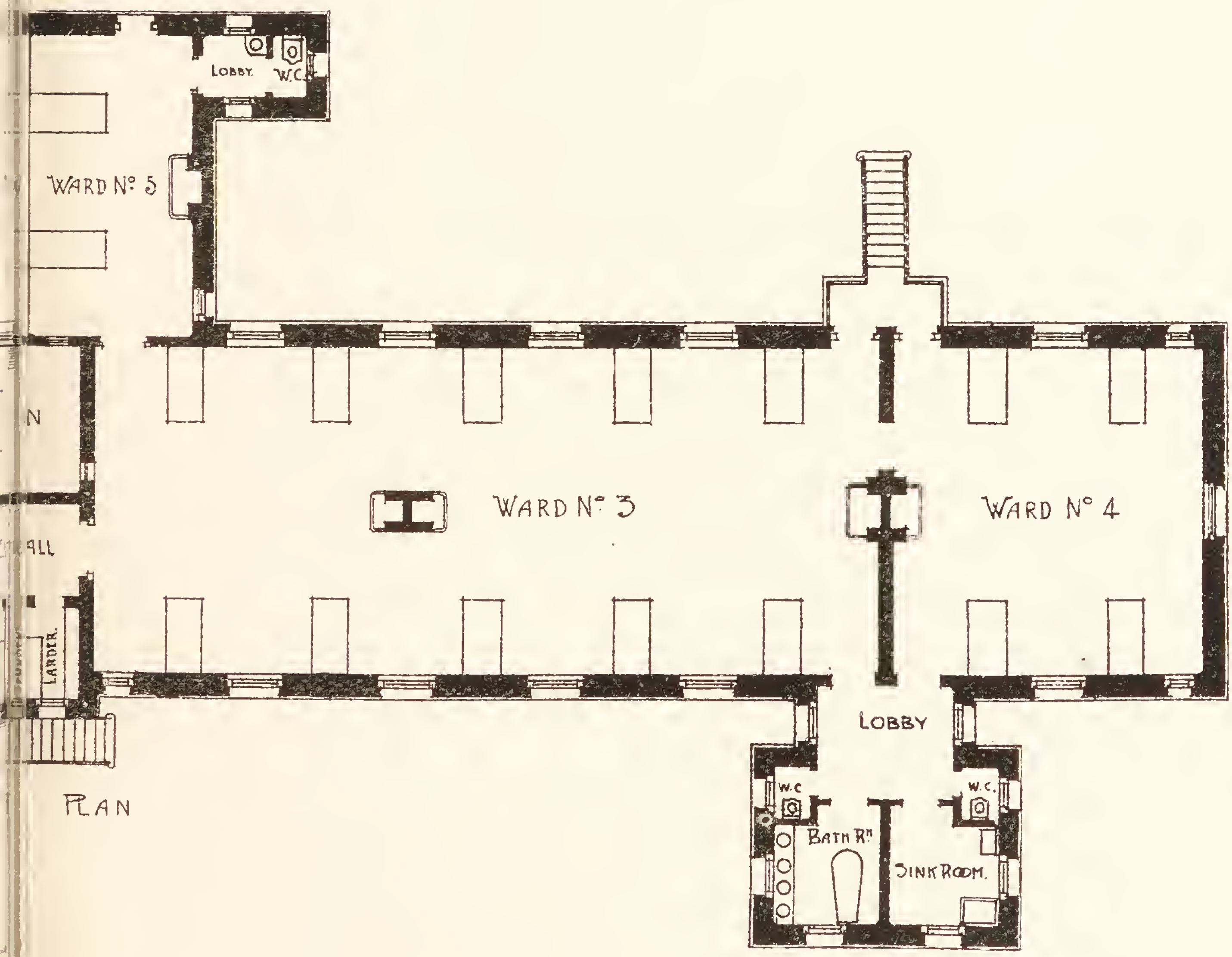


— FRON





VATION —


LOBBY.
W.C.
WARD Nº 5
N
WARD Nº 3
WARD Nº 4
ALL
LARDER.
LOBBY
W.C
W.C.
BATH Rm
SINK ROOM.

PLAN

Ward Pavilions.—There are at present three pavilions erected on the south side of the main covered way. One isolation block is being erected on the north side, leaving for the completion of the whole design the erection of two other pavilions on the north side in positions corresponding with those on the south side. Each pavilion is one storey in height, and is built on pillars, thus allowing a free circulation of air around and underneath the whole of the building. They are constructed on the same general plan, and to accommodate 14 patients in each half, with a small ward for two other patients. The only difference between the three pavilions is that in the first there is a wall sub-dividing the large wards into two of unequal size, one to accommodate 10 patients, and the smaller room 4 patients. In the centre of the pavilion we find the entrance to the same from the covered way opening out into a large hall. On the right and left of it are clothes stores and pantry respectively, immediately opposite being the ward kitchen fitted up with all the necessary appliances, having a gas stove for whatever cooking purposes may be required, and having three fixed windows allowing complete observation of the whole of the wards. The wards are arranged so that the beds can be placed between alternate windows, having a ventilator opening immediately beneath the bed, with radiator on each side at either end. There are also large ventilating stoves placed centrally and open fire grates at the end. A small ward for two beds opens out of one of these larger wards, and has a separate means of exit at its further side into the Hospital grounds, and also separate lavatory accommodation, thus allowing it to be used at any time entirely distinct from the other wards. Covered hot water pipes run the whole length of each ward below the floor, and communicate with the radiators within the ward, behind each of which is placed a ventilator for the admission of fresh external air. Further ventilation is provided by means of a fan in one of the side walls of each large ward, driven by a small electric motor, and also by Boyle's exhaust flues through the roof. The wards, and in fact the whole of the buildings, are lighted throughout with electric light.

The size of the wards is as follows :—

Cubic capacity 26ft. × 89ft. × 13ft. = 30082 = 2150 cubit feet per bed.

Floor space 26ft. by 89ft. = 2314 = 165 square feet per bed.

Linear wall space 26ft. + 89ft. = 115 = 8 feet per bed.

The window area in all cases is equal to one quarter of the wall space. The walls and ceilings are in Keene's cement painted four times and twice varnished, giving a beautifully smooth surface to the whole. The floors are fireproof and are covered with polished teak, laid diagonally. All the corners and angles in the wards are rounded off to allow as little surface for the lodgement of dust and other particles as possible.

The whole of the pipes, electric wires and various flushing cisterns are placed in the false roof, which is made accessible from outside the pavilion. The windows are glazed with two large plates of $\frac{1}{4}$in. plate glass, one in each sash upper and lower, and made on the N. A. P. principle, so that both sides of the window can be readily cleaned from the outside of the building, as the sashes are made to swing round on a central point. The thickness of glazing also tends to assist in keeping the temperature of wards more equable.

The walls of the sanitary blocks and ward kitchens are lined with glazed bricks and the floors are also of terrazzo, so that the whole can be thoroughly cleaned by hosepipe if desired.

The ward lavatories are placed in annexes about two-thirds of the way along the North West sides of the Pavilions towards the end, thus allowing easy access from any part of the ward. Each annex is separated from the general ward by a warmed and cross ventilated corridor, which in the first pavilion has a separate door into the small four bed ward as well as one into the larger ward, and is divided into four portions *i.e.*, two separate W.C.'s, one room containing four lavatory basins, fixed bath and room to stand a moveable bath, and one room containing sink for flushing and scalding bed pans, draining boards, slop sink, and a small cupboard open by means of louvred ventilators to the external air, and closed to the room by means of a tight fitting door, in which can be placed chamber utensils, &c., when a further inspection or examination of their contents is desired.

Steam heaters connected with the heating and ventilating arrangements are placed in the basement under each annex.

The ward furniture consists of Gale's iron bedsteads, all having rounded sides, corners and ends, fitted with Lawson Tate's spring mattresses. The patients' lockers are of pine, with birch Windsor chairs, cherry wood arm chairs for children. The ward tables are of polished American maple.

Isolation Block.—The block in course of construction on the left hand side of the covered way, and in a position corresponding to the first pavilion on the right hand side, is divided into two distinct halves, which halves are further sub-divided into two separate wards containing respectively three and two beds, each half is provided with a separate ward kitchen and all its appliances, and each separate ward is provided with distinct lavatory accommodation, so that any portion of this block can be used for any purpose entirely distinct from the remainder. This block is only connected with the main covered way by means of a foot walk, thus further emphasising the purpose for which it is intended, viz: for isolation purposes.

Laundry Block.—This building is erected at the extreme end of the covered way connecting the whole of the buildings, and is of very ample proportions, having all the modern appliances for facilitating the carrying on of the work necessary in such an institution, being capable of accommodating the washing for over 200 persons, and is divided into two portions, one for patients, one for the staff. The foul linen will be received at the extreme rooms right and left, and will be there placed in slate tanks for steeping purposes, from thence passed through the wash house proper, which is provided with its various appliances for soap boiling, scrubbing, Summerscales' Triumph Injector washing machine, with automatic reversing gear and a hydro extractor for assisting the drying process, from thence the goods will be taken to the steam heated drying chamber, and will be placed upon the drying horses contained therein, viz: 10 in the patients' department, and 6 in the Staff department, from thence they pass to the ironing and finishing room, and so on into the clean linen delivery room which is fitted with sorting racks, baskets, &c. The floors are concrete throughout, delivering by means of channels on to trapped gullies outside the building, ample ventilation and light is also provided.

MORTUARY.—This block is at the extreme back of the site, and will be reached from the outside, for the purpose of any funerals, by means of the back way into Albany Road, thus obviating the necessity for the hearse passing near any portion of the Hospital premises proper. It comprises a shell room, post mortem and bacteriological room, and a viewing room, which has a large glass panel through which the friends will be allowed to view the body, thus obviating any possibility of contact with the infected corpse.

BOILERS AND ENGINE.—The steam required for heating and disinfecting purposes, and the power required for driving the laundry and other machinery, is provided by means of two Cornish boilers, 18ft. by 5ft., placed in the basement at the back of the Laundry block, which also contains a Worthington pump capable of feeding the boilers, either directly or through the economisers. A small engine house with a horizontal 6-horse power engine for driving the machinery is provided.

DISINFECTOR BLOCK.—The disinfector is of the approved Washington Lyon Type, and is placed at the back of the Laundry and boiler house. The machine itself is fitted in the usual way, having one end opening into one room which will be used as the infected side, whilst the other opens into another room, entirely cut off from the former and used as the disinfected side. The disinfector is fitted with an automatic pressure and time gauge recorder, which will thus indicate the length of time and the amount of steam pressure used in the disinfection of any set of articles. Adjoining these rooms is a small store.

COVERED WAYS.—As has been frequently indicated above the whole of the buildings inter-communicate by means of these partially enclosed covered ways, which are about 8ft. high, covered in for 5ft. 6in. of their height, leaving 6in. air way at the bottom and 2ft. at the top, roofed by means of corrugated iron. The floors are concrete and under-neath is a trench extending the whole way conveying the various steam, hot and cold water and other pipes, so that any portion can be easily got at without disturbing the floor of this covered way.

DRAINAGE.—The whole of the main drainage goes directly into the Corporation sewer in Dalton Green Lane. All the W.C's. are efficiently trapped, and the soil pipes carried outside the walls. Bath and Lavatory wastes also discharge outside over properly trapped drains. The drains have all been tested with the hydraulic test and are laid with good gradients and straight lines between man holes which have been placed at all points where change in the direction of the drain was required, thus providing for efficient inspection of the same. The rain water from the roofs of the Laundry and Disinfector have been conveyed directly into the Lees Head Beck.

With regard to the general plan of the drainage, it may be said to be distinctly divided into two portions, one "infected" and the other "noninfected" with separate entrances into the sewer. The latter drains the Administration Block, &c., and thence into a disconnecting manhole and on to the sewer. The former provides for the Pavilions, Laundry, &c., which also passes through a disconnecting chamber before it reaches the main sewer. The principle is that at the head of each main drain is a large automatic flushing cistern, which by its discharge will tend to keep the drains well cleansed.

Abstract of Monthly Meteorological Observations for the Year 1898.

1898. MONTH.	Barometer, corresponding to sea level. inches.	Temperature, Degrees F.				WIND.		Sunshine, hours. (Total).	Rainfall inches. (Total).	Moisture of air, 100 = saturation.	Mean temperature of week, in air.	Mean temperature at 2ft. 6in. in ground.	Mean temperature at 4ft. 6in. in ground.	Total sunshine, per cent. of possible	Total horizontal movement of the wind.	Total number of Deaths.
		Lowest, Night.		Highest, Day.		Maximum miles per hour.	Direction.									
		Grass.	Air.	Shade.	Sun.											
January ..	30·06	36·8	40·7	47·2	56·4	24	S.W.	43·9	2·45	88·1	44·0	42·7	44·7	82	3795	126
February ..	29·52	30·4	34·7	43·3	67·8	32	NW. W.	76·0	3·01	80·1	39·0	41·5	43·9	116	4650	143
March	29·59	29·6	33·6	44·9	74·0	22	NE. W.	79·8	0·70	78·0	39·3	39·6	42·1	104	3870	173
April	29·84	33·6	38·4	52·3	83·5	20	SE. W.	126·5	1·72	71·7	45·4	42·7	42·7	145	2595	140
May	29·76	39·5	42·1	54·1	86·1	21	SE. NW.	126·0	3·68	78·0	48·1	46·7	45·1	120	3890	133
June	29·92	44·7	47·3	62·1	100·7	16	NW. W.	136·4	2·61	77·2	54·7	51·9	48·2	128	2560	131
July	30·08	47·5	50·9	65·9	105·7	19	NW. W.	172·9	1·06	74·7	58·4	56·1	51·6	164	3020	99
August	29·96	50·6	53·3	67·3	102·7	17	SW. W.	138·8	4·14	76·2	60·3	57·8	54·1	142	3460	134
September..	30·05	47·0	51·5	66·5	97·4	15	SW. W.	122·6	0·13	74·5	59·0	57·6	55·3	152	2020	166
October....	29·76	42·9	46·2	56·5	76·2	12	S.W. E.	75·1	4·90	83·2	51·3	52·7	53·3	110	3110	118
November..	29·74	36·6	41·0	47·3	56·9	10	SW. NW.	28·5	2·79	83·7	44·1	48·2	50·7	64	2255	149
December..	29·92	36·4	41·3	48·8	57·4	27	SW.	42·1	3·05	81·2	45·1	45·1	47·8	102	4145	113
Average..	29·85	39·6	43·4	54·7	80·4	20		1168·6	30·24	78·9	49·1	48·5	48·3	1429	39370	1625

REMOVAL OF NUISANCES.

Yearly Report, 1898, January 2nd, 1898, to December 31st, 1898.

	1st quarter	2nd quarter	3rd quarter	4th quarter	TOTALS
Drains requiring Re-construction	50	121	53	67	291
,, ,, connecting with main sewer	18	74	7	18	117
,, not efficiently trapped	30	89	49	76	244
,, requiring Ventilation Shafts	26	35	16	39	116
Defective Sink Pipes and Drains	66	83	75	98	322
,, Yard Drains	39	71	38	60	208
,, Cellar Drains	79	35	16	22	152
,, Eave and Fall Pipes	38	43	20	34	135
,, Roofing	3	..	1	1	5
,, Urinals	3	1	..	..	4
,, Baths	3	4	3	6	16
,, Water Closets	6	13	16	29	64
Waste Pipes requiring Disconnecting	45	43	41	42	171
Fall Pipes requiring Disconnecting	34	51	14	29	128
To provide Eave and Fall Pipes	8	11	5	9	33
Nuisances from want of Drains	16	25	7	9	57
,, Water in Cellar	13	21	12	11	57
,, Cellar Wells	..	13	..	..	13
,, Cess Pools	1	1	1	..	3
,, Street Gullies	2	..	..	1	3
,, Stagnant Water	12	16	5	16	49
,, Defective Surface of Yard	7	1	1	4	13
,, Smoke	18	10	4	..	32
,, Poultry and Pigeons	..	1	1	..	2
,, Animals	..	..	..	1	1
Offensive Accumulations	24	19	20	14	77
,, Ashpits snd Privies	103	62	33	47	245
,, Swill Tubs	..	..	3	..	3
,, Urine Receptacles	..	..	..	1	1
Urine Guards required	1	..	1	2	4
Closets requiring Lime-washing	..	5	..	5	10
Workshops requiring Lime-washing	..	..	..	26	26
Ashpits and Closets requiring Re-construction	60	38	18	25	141
,, ,, requiring proper doors and coverings	8	31	13	18	70
Old Privies requiring alteration to tub or w.c. system	64	41	21	22	148
Insufficient Closet Accommodation	10	9	4	9	32
Houses Overcrowded	3	..	3	7	13
,, Unfit for Habitation	..	..	..	..	..
,, Requiring Cleansing	3	1	1	2	7
,, Requiring Ventilation	156	2	..	11	169
,, Damp	..	3	4	3	10
,, Requiring Water Supply	..	..	..	..	..
Workshops requiring Cleansing	1	..	..	..	1
Cowsheds Overcrowded	33	..	..	..	33
Factories requiring Fire Escapes	25	7	7	..	39
Cowsheds requiring Lime-washing	11	3	..	..	14
,, ,, Draining	15	7	..	..	22
,, ,, Lighting	46	..	..	..	46
,, ,, Paving	17	6	..	..	23
,, ,, Ventilation	38	7	..	..	45
Bakehouses requiring Lime-washing or Cleansing	..	1	..	..	1
,, ,, Ventilation	..	..	..	..	..
TOTALS	1135	1004	513	764	3416

The epitome of the Sanitary labour accomplished during the year 1898 will be found in the following Table :—

SUMMARY.

	1st quarter	2nd quarter	3rd quarter	4th quarter	TOTALS
No. of premises where Zymotic diseases have occurred	110	92	98	88	388
,, inspected ,, ,, ..	110	92	98	88	388
,, disinfected ,, ,, ..	140	92	90	88	410
,, flushed ,, ,, ..	158	110	191	143	602
,, visited searching for Fever	138	252	98	282	770
Total No. of re-visits where cases are isolated at home	134	90	114	185	523
Total number of visits to infected houses	494	528	465	716	2203
Infectious diseases reported	159	116	126	103	504
Cases removed to Hospital	129	93	89	66	377
Number of Articles disinfected by Lyon's Disinfector	2397	2397	1448	993	7235
,, visits in deaths from Phthisis .. .	80	15	33	49	177
,, ,, Under one	133	57	78	137	405
,, premises flushed by request of owners (paid for)	28	51	48	44	171
Other premises, yards or courts flushed	652	660	618	611	2541
Gullies found choked by Flushers	86	90	62	74	312
Drains ,, ,, ...	87	95	126	81	389
Gullies made clear ,, ...	76	87	56	69	288
Drains ,, ,, ...	82	91	112	73	358
Number of Buckets of Lime given out	5	7	4	11	27
,, Tubs registered	48	74	78	88	288
,, applications received to empty Ashpits & Privies	308	313	279	196	1096
,, ,, ,, ,, Receptacles ..	25	41	80	35	181
Nuisances reported at Sanitary Office	71	106	132	110	419
,, inspected	71	106	132	110	419
Inspection of premises where nuisances are found .	793	765	742	736	3036
,, ,, where no nuisances are found	906	876	1029	928	3739
,, ,, where offensive trades are conducted	5	13	16	12	46
,, Dwellinghouses in house to house visitation	19	..	..	245	264
,, Cellar Dwellings	.	3	..	10	13
,, Factories	63	39	36	76	214
,, Workshops	22	170	193	462	847
,, Schools	2	..	..	..	2
,, Slaughter Houses	3	2	21	8	34
,, Canal Boats	102	63	47	77	289
,, Dairies and Milkshops	9	41	21	134	205
,, Cowsheds	175	94	16	125	410
,, Bakehouses	12	35	26	14	87
,, Markets	daily	daily	daily	daily	daily
,, Van Dwellings	..	141	46	..	187
Revisits to work in progress	582	407	489	656	2134
Visits to property under notice	250	279	296	321	1146
Total number of Inspections of Premises .. .	2943	2928	2840	3804	12515
No. of Entries in Report Books	224	156	129	147	656
Preliminary notices to owners	237	120	115	127	599
Letters written	546	493	519	723	2281
Number of legal notices issued for abatement or abolition of nuisances	115	194	44	29	382
Owners seen personally	350	295	239	248	1132
Notices handed over to Borough Surveyor's Department by request of Committee	9	24	..	13	46
,, ,, ,, owner	32	16	16	18	82
Summonses taken out	3	..	..	..	3
Smoke observations taken	38	79	57	7	181
Number of visits under Food and Drug Acts ..	62	53	68	14	197
Food and Drugs—samples purchased	36	30	40	17	123
,, ,, adulterated	..	2	..	1	3
Meat, seizures made or destroyed	..	..	1 cwt. Tripe, 7cwt. 69lbs. beef 850 Eggs.	..	1 cwt. Tripe, 7cwt. 69lbs. beef 850 Eggs.
Fish	..	..	..	..	..
Fruit	..	..	..	..	..
Water samples taken for analysis	1	..	4	..	5
,, ,, polluted	..	..	2	..	2
Sewage samples taken for analysis	..	..	..	..	..

Sanitary Work

The tables showing the list of nuisances removed, and the summary of the work done, will indicate in a very definite manner the enormous amount and the varied character of the work of this department.

It would be impossible for me to describe in any detail the various points of the work accomplished, it must suffice, however, if I briefly indicate the broad features of the matter. Details of the whole of the work have been laid before the Sanitary Committee at their monthly meetings.

The number of nuisances reported at the Sanitary Office has been 419, which have all been immediately inspected, and in some cases we find that the alleged nuisance has existed for some considerable time, the actual immediate cause for making the complaint has been the fact of some temporary disagreement between the parties concerned. If, on inspection, we consider the nuisance such as to require attention, the matter receives our immediate and best attention. Nuisances have been found at 3,036 premises, 3,739 have also been inspected where no nuisance was found. The nuisances referred to include the following:—245 cases of offensive ashpits and privies, and 77 accumulations of offensive and noxious matter. In 291 cases the drainage of premises required reconstruction, 117 other premises required their drainage connecting with main sewer, 244 systems of drainage were not efficiently trapped, and 116 other required proper ventilation. Three hundred and twenty-two had defective sink pipes and drains, 208 defective yard drains, 152 defective cellar drains, 224 other matters connected with defective sanitary conveniences in houses were also attended to. One hundred and forty-one ashpits and closets were reconstructed, 70 required proper doors and coverings, 148 midden privies were found requiring alteration to the tub or water closet system, and in 32 cases the closet accommodation was insufficient for the number of houses and persons using the same. Thirteen houses were found to be overcrowded, 7 required cleansing, 169 required ventilation, and 10 were found to be excessively damp. One hundred and eighty-three cowsheds were found to require limewashing, draining, lighting, paving or ventilation, or were considered to be overcrowded. One thousand one hundred and thirty-two owners or their agents were seen personally in respect to the various requirements, 2,281 letters were written respecting the same, 599 preliminary notices were sent to owners, 382 legal notices were authorised by the committee to be issued for abatement and abolition of nuisances, 46 matters were handed over to the Borough Surveyor's Department by request of the Committee, and 82 by the request of the owners. One hundred and eight-one smoke observations were taken, 197 visits were made, and 123 samples were purchased under the Food and Drugs Acts, of which 3 were considered to be adulterated. My best thanks are due to the Chief Constable for the assistance rendered to this Department by allowing the constables under his control to report any case where they notice nuisances occasioned, so that nuisances of a glaring character are brought to our knowledge in a more expeditious way than would otherwise be the case, and we are hoping that this method will be adopted more frequently in the future than it has been in the past.

In the early part of the year I received a letter from an occupier of a house and premises drawing attention to the fact that he again complained of a serious nuisance occasioned by sewage matter flowing from the drainage of neighbouring properties down his yard, and even into his own house, which he considered had occasioned a serious illness in his own family, and alleged that the nuisance had been existant more or less intermittently for a period of seven years, and on referring to the books of our Department, we found that on several occasions during this period the nuisance complained of had received a certain amount of attention, but up to that time had not been effectually dealt with. I am pleased to say that the action taken on this occasion has resulted in the complete abolition of the nuisance, and by having satisfactory drainage arrangements made I think there is no likelihood of a recurrence of this trouble.

Another matter which has also been satisfactorily disposed of was in reference to closet accommodation at certain mill premises in the town. This matter had been receiving attention since the middle of 1896, but on account of various technicalities and other loopholes in the method of procedure adopted the matter was not effectually disposed of until the latter part of the year 1898.

The two above-mentioned cases give some hint as to the difficulties encountered when requiring influential persons to remedy even really serious nuisances where the necessary works are likely to occasion considerable expense.

In the latter portion of 1897 I brought before the notice of the Sanitary Committee what had for a long time seemed to me to be a grave defect in the Sanitary administration of this Borough, which was the fact that whilst the drainage systems of new house property was being laid a certain amount of inspection of the same was carried out, to see that it was in accordance with the plans passed, yet on the completion of same, or portions thereof, no satisfactory steps were taken to test the drainage as to its soundness for the purpose for which drains are laid, viz :—to conduct the sewage and slop water away from the premises in question. This matter was brought more particularly to ones notice by the fact that in some very new property we had cases of Infectious Disease, and on testing the drainage of the property it was in several instances found to be seriously defective, this naturally seemed to be an injustice to the owner, and a reflection upon the Corporation methods generally. I therefore suggested to the Committee that all new drainage should be tested by means of the Hydraulic test, and that the whole of the sanitary conveniences of new houses should be certified by me to be satisfactory before the houses were allowed to be inhabited. I am pleased to say that these suggestions were adopted and are now regularly carried out. That there was evidently some need for this action was evidenced by the fact that on our commencing to apply these tests it was quite exceptional to find any drainage that would satisfactorily hold water, and it was only after having sent a Circular letter to the various Contractors and Architects of the town indicating the new requirements that it became the rule to find the drainage satisfactory at the first time of testing.

The chief clause of the circular send round was as follows :—

> Regulations have been adopted by the Council of the County Borough of Huddersfield arranging that all notices respecting House Drainage will be forwarded by the Borough Surveyor to the Medical Officer of Health, so that the Hydraulic or Water test may be applied by the Officers of this Department before the drains are covered up. In order that this may be done satisfactorily it will be necessary to provide an opening in the line of the house drainage immediately the drain enters the curtilage of the premises from the sewer. This may be accomplished by the construction of a suitable disconnecting chamber, with an open channel traversing the floor and discharging the sewage through a disconnecting trap to the sewer, or if this be inconvenient the insertion of one of the various forms of patent access pipes, or some other similar contrivance, whereby the full bore of the drain is open and can be plugged to retain the water required for the test. It is also provided that all old drains which are relaid in their entirity shall be considered as new drains, and shall be constructed and tested as above set out for new drainage. The Officers of this Department will also examine and as far as possible test all the internal sanitary fittings of new property before the certificate required by the Huddersfield Waterworks and Improvement Act of 1876, section 94, is given by the Medical Officer of Health, as certifying to the fitness of the premises in question for human habitation.

I take this opportunity of thanking the majority of the persons thus concerned for the assistance they have rendered this Department by so readily complying with our requests.

Various other owners of property have asked for an inspection of their houses, and, having complied with the whole of the requirements respecting drainage and sanitary conveniences of the same, certificates of fitness for habitation of the following form have been issued.

COUNTY BOROUGH OF HUDDERSFIELD.

Huddersfield Improvement Act 1876, *Section* 94.

Sanitary Department.

I hereby certify that the whole of the existing drainage and sanitary arrangements of the premises situated at ....owned by...................................
and referred to in the books of this Department as No.........
have been examined and as far as possible tested, and I herewith certify that in my opinion the premises are at this date in a satisfactory state and fit for human habitation.

Medical Officer of Health.

This is a form of insurance against sickness with its attendant inconvenience and ills, which it would be advisable for all inhabitants to endeavour to obtain. No doubt the best time for securing this Insurance Policy is when making arrangements with the Landlord for taking a fresh house, as on request he will then be most likely to obtain the certificate required.

In carrying out the work of testing the new house drainage we find that a great many of the houses in Huddersfield, probably in fact the majority, are drained in the following manner. The houses are generally built back to back with a passage between each double pair. The drainage from the back two houses is taken into a common pipe in the yard where it is taken along the common passage, there receiving the drainage of the front two and out into the roadway to connect with the sewer. We experience great difficulty in testing this passage drain on account of the fact that there is no inspection chamber, or other outlet arranged for at the sewer end of the drain, and also it seems to me that this channel along the passage, draining as it does the four houses which generally belong to the same owner, may be according to the definition in the Public Health Act, 1875, section 4, and according to many recent decisions a public sewer, and therefore repairable by the Corporation.

The definitions given in the Act roughly are that a drain is that which receives the drainage of one house, while a sewer is that which receives the drainage of two or more. Should this be the case there are many miles of similar channels in Huddersfield, which have been laid in a somewhat unsatisfactory condition in the past, and in accordance with this definition the Corporation might be compelled to put and keep them in repair. In view of this fact I thought it advisable that the Sanitary Committee should direct the attention of the various District Committees to the matter, so that in any plans of new house drainage, if it were their intention to have the common channel a sewer, it would be advisable to have an inspection chamber, inspection eye, sweeping eye, or a T junction (upright) placed on the house side of the intercepting trap, which should be provided near the outlet at the main sewer end, so that in case of any blockage in this channel the same could easily be removed by means of drain rods without the expense of opening out the ground on every occasion, and also if it is the intention of the District Committees that these channels should be simply drains it would still be advisable to have an inspection chamber, or the other means above mentioned provided on the spot where these four drains connect with the common portion connecting with the sewer, so that they would likewise be easily got at without the expense of opening up the ground in case any difficulty arose therein.

The provision of any of these means of access to these drains would greatly facilitate our work in testing the same, as we should be able to get at the channel to put in the necessary plug for the purpose of testing and would thus render the test more satisfactory.

During the year 1898 :—

One hundred and thirty entries were made in the New Drainage Book.

One hundred and fifty cover up notices were received from the Borough Surveyor. These related to the drainage of 233 dwellinghouses and 46 other premises.

One hundred and thirty-nine tests were applied to the drains of these properties, viz: 54 water, 81 smoke, and 4 chemical.

In 26 cases no tests could be applied owing to want of provision for plugging the drain near its outlet.

Two hundred and thirty-one inspections of drains and new premises were made during the year.

Seventy-three completion notices have been received from the Borough Surveyor, and after inspection, 72 certificates have been issued by the Medical Officer of Health, permitting the occupation of 108 dwellinghouses and 9 other premises.

No completion notices had been received by the Sanitary department in respect of 122 dwellinghouses entered in the drainage book.

Workshops and Factories.

Seven hundred and fifty four Workshops have been inspected during the year, 152 being new workshops and 602 re-inspections.

The following table indicates the various classes of these workshops :—

Workshops Inspected during the Year 1898.

Description of Workshop.	New Workshops Inspected.	Workshops Re-inspected.
Dress and Mantle Makers and Milliners	30	137
Tailors & Waterproof Manufacturers, &c.	25	75
Boot and Shoe Makers, Cloggers, Saddlers and Curriers	28	120
Joiners, Cabinet Makers, Wood Carvers, Coopers and Coach Builders	17	46
Blacksmiths and Whitesmiths, Cycle Repairers, Wheelwrights, &c.	18	79
Watch Makers and Electrical Engineers	10	16
Plumbers, Painters and French Polishers	11	27
Organ Builders, Piano Repairers and Gilders	4	12
Upholsterers, Corset Makers and Blind Makers	3	10
Basket and Brush Makers	0	16
Manufacturing Chemists, Jam Makers, &c.	0	6
Hearth Rug Makers, Rag and Wool Sorters, and Waggon Cover Makers	3	20
Hosiery Knitters	2	12
Laundries	0	4
Monumental Sculptors	0	9
Rope Workers	0	3
Ærated Water Manufacturers, Beer Bottlers and Cork Cutters	1	3
Artist, Card Cleaner, Heald Maker, Hat Cleaner, Tallow Chandler, Teazle Trimmer and Ticket Writer	0	7
	152	602
Total Inspections	754	

During the year, 107 workshops have been removed from the Register, having been discontinued.

The total number of workshops upon the register, December 31st, 1898, was Central District 397, Outer Districts 314, total 711.

Fire Escape Provision. The provision of Fire Escapes in connection with the factories in the Borough is now practically completed, there being only about three premises in the Borough requiring attention.

Fire Escapes. The total number of Factories inspected in respect to means of escape in case of fire is 135

Premises found satisfactory at time of visit...	10	
Premises found empty at time of visit ...	6	
Premises subsequently vacated	1	
Premises in which were less than 40 work hands	27	
Premises where hands have subsequently been reduced to less than 40	2	
	—	46
Leaving premises to be accounted for		89

Fire Escape Notices issued, 100, viz :—

In respect of premises in which over 40 were employed	86
In respect of premises in which under 40 were employed	5
Subsequent repetition of Service of Notice	9
	100

Personal Notification to provide Fire Escapes, 4.

Escapes provided and completed	78
Work in hand...	8
Nothing done	3
	89

Taking the number of premises under 40 as not belonging to this Department we have 90 premises requiring means of escape. Personal Notification has been given or Notices issued to the owners in these cases, and in 86 cases the work is either completed or in hand, giving a percentage of work done or in hand to Notifications of 95·5.

Smoke Observations 1898.

The following table shows the number of Smoke Observations taken during the year, and during each month of the year, with the average number of minutes of dense black smoke emitted.

1898.	Number of Observations taken.	Number shewing Moderate Smoke or Nil.	Number shewing Dense Black Smoke.	Average number of minutes of Dense Black Smoke emitted from Chimneys.
January ...	...	...	...	...
February ..	2	0	2	7·25 per hour
March ...	29	3	26	8·46 ,,
April ...	22	3	19	4·03 per half-hour
May ...	38	7	31	3·66 ,,
June ...	15	1	14	2·25 ,,
July ...	42	6	36	4·40 ,,
August ...	5	1	4	5·25 ,,
September...	...	...	...	...
October ...	3	0	3	4·83 ,,
November...	4	2	2	3·00 ,,
December...	...	...	...	...
Totals ...	160	23	137	3·92 per half-hour

The period for taking observations was reduced by the Committee from one hour to half-hour in March, 1898, and the maximum limit for dense black smoke was fixed at three minutes per half-hour.

Letters have been written to, and notices served, on the parties involved in cases where the limit named above has been exceeded, to bring pressure on them to reduce the black smoke within the limit prescribed, and considerable improvement has been effected in many cases.

Dairies, Cowsheds and Milkshops.

As a result of the report presented by the Deputation who attended the Sanitary Congress, held at Birmingham, the Sanitary Committee passed, and the Council adopted the following recommendations :—

(1) That every Veterinary Surgeon be requested to forthwith notify, according to the forms provided by the Corporation for that purpose, to the Medical Officer of Health all cases of Tuberculosis (piners, wasters, graped) in milch cattle occurring within the Borough, and also any cases occurring outside the Borough, if any milk from such farm is disposed of for the purpose of sale within the Borough immediately on his becoming aware of the presence of such disease, and for every notification of a fresh case a fee of 1/- shall be paid to such notifying Veterinary Surgeon.

(2) That in any case where there is reasonable ground for a difference of opinion as to the presence or otherwise of Tuberculous disease in any milch cattle, the Corporation are prepared to supply Tuberculin for the purpose of definitely testing such cattle, and pay a fee of 2/6 to the Veterinary Surgeon for the operation of testing provided that full details of the various re-actions are forthwith supplied to the Medical Officer of Health.

Which are now being carried out throughout the whole of the Borough, and I am pleased to say that this movement is receiving every support from the Veterinary Surgeons in the district, and also from many prominent Cowkeepers, but up to the end of the year the time had been too short for any definite figures showing the result of such action to be of much value. I have also been interviewed on several occasions by representatives of the Milk Dealers', and Farmers' Associations, and they practically all agree as to the desirability of attaining the objects which we have in view, but in their opinion the question should be dealt with by a general Act, and not by Clauses in any Local Act. The Milk Dealers' Association also brought before my notice the question of taking samples of milk, from milk brought into the town by rail and the method of following up this milk to its source, and I advised the Sanitary Committee, who acted on my suggestion, that we should assist the Milk Dealers' Association, and endeavour to obtain a Clause having the following effect in any Act amending the Food and Drugs Acts :—

"Inspector, or other duly qualified person, under the direction and at the cost of the local authority appointing such inspector or officer, should have authority to procure at any railway station or other place of delivery any sample of any milk in course of delivery to the purchaser, whether in or out of the district for which he is appointed, and shall submit the same to be analysed, and the same shall be analysed by the analyst to the local authority notwithstanding he is not the analyst of the district."

During the year 1898, 410 inspections of cowsheds and 205 inspections of milkshops and milk purveyors' carts, &c., were made.

The number of premises entered in the Registers of the Department are :—

COWKEEPERS' REGISTER.

Entries previous to 1898	177
Entries during 1898	100
Present total	277

MILK PURVEYORS' REGISTER.

Entries previous to 1898	137
Entries during 1898...	87
Present total	224

Total number of cowkeepers and milk purveyors 501.

N.B.—Cowkeepers who are also milk purveyors, are entered in both registers.

CERTIFICATES OF REGISTRATION ISSUED.

	Before 1898.	During 1898.	Totals.
Cowkeepers	8	3	11
Cowkeepers and milk purveyors ...	64	28	92
Milk purveyors	53	29	82
Totals	125	60	185

Number of entries made where no application has been made for Registration—

Cowkeepers, some of whom are also milk purveyors	140
Milk purveyors...	1
Total	141

Sale of Food and Drugs Acts.

As will be seen from the table various samples of ice-cream were taken for analysis, and the enormous numbers of colonies of bacteria found therein was simply astounding. Although there was no definite evidence that any of these colonies were of a pathogenic character, yet it was most conclusive evidence that the conditions under which this substance was manufactured must be revolting in the extreme. This bears out most forcibly the point I contended for when discussing the last Improvement Bill we promoted, viz: that a Clause should be inserted providing for the registration, with its attendant inspection, of all places where this substance is manufactured or sold. Unfortunately this suggestion was not adopted.

When it was made known that an Act for Amending the Food and Drugs Acts was in preparation I was desired by the Committee to draw up and forward to the Town Clerk, so that he might bring the same before the proper authorities dealing with the matter, any suggestions which I thought might be of value. The following is a list of the suggestions indicated.

Suggestions re Amending the Food and Drugs Acts.

(1) The appointing of a Committee of Reference to decide as to standards of purity, uses of colouring matters, preservatives, and methods of analysis. See that Medical Officers of Health are satisfactorily represented on this Committee of Reference.

(2) Define more clearly the scope of Foods so as to include condiments, baking powders, and in fact every article taken internally or used in food or drink by man.

(3) Define Drugs, so as to include any animal, vegetable, or mineral substances used in the composition of any material whether for internal or external use.

(4) To authorize the Local Government Board to compel authorities to have a certain percentage of samples analysed annually, viz: at least one sample for every 1,000 inhabitants of the place, or in default the Local Government Board to appoint an Inspector, to do this work at the cost of the local authority.

(5) Prescribe definite form of certificate of analysis.

(6) Prohibit the colouring of margarine in imitation of butter.

(7) Prohibit the mixing of margarine and butter.

(8) Require the registration and inspection of margarine factories.

(9) Increase the penalties for breach of the Act.

(10) Require the composition of compounded articles, *i.e.*, children's food, meat extracts, egg powder, &c., to be distinctly marked outside the same.

(11) State the precise form of Warranty required in order to comply with the provisions of Act in reference to Warranty.

(12) That the provisions of Section 3 of the Act, 1879, be applied to foods, drugs, &c., not only milk.

(13) Remove the necessity for analysing margarine where the offence is only one such as neglecting to label, &c., and not essentially requiring analysis, as is now rendered necessary by Clause 9, Section 33 of the Act of 1875.

(14) Power to deal with imported articles such as milk, butter, &c., in the same way as home products.

(15) Tins and all receptacles containing condensed separated milk to be distinctly marked with description of contents on the outside.

(16) Power to proceed to place of origin or manufacture, whether within or without district, and there take samples.

Sale of Food and Drugs Acts.

The number and description of the samples taken under the above Acts during 1898 is set out in the following table—

Description of Samples.	Number of Samples Purchased.	Number Genuine.	Number Genuine but Poor.	Number Adulterated.	REMARKS.
Milk	85	74	9	2	Milk—1 case 4·2% of added water and 1 case where 9% of butter fat had been removed, were not considered by the Committee to be sufficient for prosecution and they ordered warning letters to be sent to the parties involved, Coffee—The committee having considered the circumstances connected with the purchase, refrained from ordering a prosecution. Oatcake—The adultrant in these cases was from 2% to 10% of wheat flour, which was considered to be required in the preparation of the article for food. Ice Cream—The cases were reported by the analyst to have developed a large number of colonies of Microbes, but besides drawing the attention of the makers and the public to the matter through the press, it was not thought desirable to proceed further in the matter.
Butter	12	12	...	...	
Coffee	12	11	...	1	
Lard	2	2	...	...	
Cheese	3	3	...	...	
Oatcake	5	...	...	5	
Ice Cream	4	...	...	4	
Totals	123	102	9	12	

The following figures relating to the meat trade have been kindly supplied to me by Mr. Matthewman.

Abattoir.	1898	1897	1896	1895	1894
Beasts	3880	3412	3445	3978	3681
Calves	2124	2031	1990	1804	1807
Sheep	13102	12801	12846	13521	14722
Pigs	5682	6579	6908	6828	5531
Carcases bought in	2916	2987	1901	844	912
Private Slaughter Houses.					
Beasts	833	870	743	874	1015
Calves	597	474	354	284	507
Sheep	2387	2640	2211	2298	3145
Pigs	1522	1306	1123	979	955
Total	33043	33100	31521	31410	32275

Tenement Lodgings.

The following is a resume of a report I presented to the Health Committee on this subject during the year, which, along with the action taken I am pleased to say they approved, and the table following gives the number of houses dealt with during the latter portion of the year.

June 3rd, 1898.

To the Chairman and Members of the
Health Committee.

Gentlemen,

During the course of my investigations into the causes tending to the spread of Infectious Diseases such as Scarlet Fever, Measles, and Diphtheria, I have found that as a direct result of the first case of one of these diseases arising in certain houses, several other persons have contracted the same complaint, this is especially the case in some of the poorer parts of the town, in which there are several families residing in one house, and where the conditions found in these houses are anything but satisfactory. The cubic space allowed for the members residing there is often very small, in fact very much smaller than is required even in the Common Lodging Houses, which are at present under the direct supervision of this Committee. I also find that unmarried persons of both sexes, and various ages, live and sleep together in one room, that there is a want of sufficient ventilation, that the Sanitary accommodation is very deficient, and in fact in many ways houses of this character directly conduce to the spread of these diseases, so much so that it has frequently occurred that we have cases from among these various families arising one after the other. I have considered the question of having more direct supervision for these houses "let in lodgings" which is provided for by the Public Health Act and also I find this matter is specially provided for in the Huddersfield Improvement Act, 1871, and in fact in that Act are included a set of regulations respecting these houses "let in lodgings" of a very complete and thorough character. I have gone carefully into this matter, and find that the regulations therein laid down have never been enforced, that the regulations themselves are of a very satisfactory character, and such that I think would materially assist in the prevention of the spread of Infectious Disease· I have accordingly within this last month made arrangements to have these houses gone through and inspected and the various rooms measured up to find how many occupants are really allowed by law, and to take steps to see that the over-crowding and unhealthy conditions hitherto prevalent are not in future allowed. I hope that these steps will further assist in checking the spread of Infectious Disease, and trust the same will meet with your approval as being the Committee appointed to deal with this matter.

Mr. Chairman and Gentlemen,
Yours faithfully,
E. G. ANNIS.

Number of houses inspected	255
Number of houses re-inspected	115
Number of Certificates of Registration and Copies of Regulations personally delivered...	219
Number ceased to take in Lodgers or Removed	11
Present Number on the Register	244

Canal Boats Acts, 1877 and 1884.

HUDDERSFIELD REGISTRATION DISTRICT.

Report on the working of the above-named Acts during the year ended December 31st, 1898.

The number of canal boats visited and inspected during the year under review was 146, and of these 290 inspections were made, viz:—

73	boats,	once	each	...	73 inspections
33	,,	twice	,,	...	66 ,,
21	,,	three times	,,	...	63 ,,
10	,,	four ,,	,,	...	40 ,,
6	,,	five ,,	,,	...	30 ,,
3	,,	six ,,	,,	...	18 ,,
Total 146					290

As against 201 inspections of 119 boats during 1897.

The larger proportion of canal boats bringing goods to Huddersfield are loaded at Hull, Goole, Wakefield, Horbury, and Manchester, and the cargoes are as varied as in former years, viz:—coal, corn, chemicals, iron, jute-yarn, logwood, rags, sugar, timber, wool, and granite setts, while coke, flour, machinery, &c., are sent away by boat.

The population found on board these boats numbered 740, viz: adult males, 498; adult females, 119; children, 123, as against 483 last year, viz: adult males, 343; adult females, 76; children, 64.

The following is a detailed statement of the number, ages, and sex of children found on canal boats during the year 1898.

1898	Months.					Years.													Totals.
Ages ...	1	3	5	6	9	1	2	3	4	5	6	7	8	9	10	11	12	13	
Males...	1	1	1	1	...	4	7	6	12	5	3	5	3	2	6	1	5	3	66
Females	...	...	...	2	3	8	8	5	9	6	2	3	2	3	4	2	...	...	57
Total ...	1	1	1	3	3	12	15	11	21	11	5	8	5	5	10	3	5	3	123

From this table it will be seen that the number of children under school age, viz: 5 years and under, was 79, and of school age 44. The excuses for the latter being on board were that they were having a holiday trip, or that they were sent to School when at home and at places where the Boat was staying for a few days.

Inspections of Canal Boats have been made on 76 days during the year, and the result of these inspections have been reported upon at each meeting of the Sanitary Committee.

The following replies are in response to and contain information required under the various heads of the Local Government Board's Annual Circular, in respect of the provisions of section 3 of the Canal Boats Act, 1884.

(1) William Medley Drake, Chief Sanitary Inspector, was appointed Inspector of Canal Boats on the 7th day of January, 1895, and the remuneration for the work is included in his salary as Inspector of Nuisances.

(2) The number of boats inspected during 1898, was 146 and of inspections 290. The 146 boats are made up of 91 broad boats, 15 narrow, and 40 fly boats, and of these 80 were registered at Goole, 53 at Mirfield, 5 at Hull, 2 at Marple, and one each at Leeds, Manchester, Sheffield, Sowerby Bridge, Wakefield, and Wombwell.

A very large proportion (about 91%) were found to be in good condition, and in conformity with Acts and Regulations in every particular.

(3) Infringements of the Acts and regulations were found on 13 boats. These matters are tabulated in the appendix to this report, but are here considered in detail.

(*a*) Registration. Two found unregistered.

(*b*) Notification of change of master. None.

(*c*) Certificates (absence of). Six cases of this infringement were found, involving two owners and their captains. Six warning notices were issued dealing with this matter, resulting in each case in the boat being brought into conformity to the Act. The master of two boats was summoned before the Magistrates without notice.

Identification. In two cases the certificate produced failed to identify the owner and the boat. These involved two owners, to whom warning notices were sent, one of which was returned duly signed and the other is pending.

(*d*) Marking. Five cases of defective marking were found involving three owners. Four of the warning notices dealt with this matter, the whole of which have been returned duly authenticated. The cases of two boats were dealt with by the Magistrates.

(*e*) Overcrowding. None met with.

(*f*) Separation of sexes. None. The age and relationship of the dwellers in the boats did not require this.

(*g*) Cleanliness. As in former years a few of the cabins were found dirty at the end of the voyage, but were cleaned at the word of the Inspector.

(*h*) Ventilation. All the boats were provided with deck lights which could be removed at pleasure, or with openings into the hold in addition to the hatchway.

(*i*) Painting and Repairs. Seven cases were found in which the paint in the cabins required renewing, and in two of these repairs were required. Five owners were in default. One was under notice at the beginning of the year, which has been put right, three warning notices have been issued, and the requirements complied with, and one master has painted his cabin on the personal representation of the inspector. The owner of two of the boats was dealt with before the Magistrates.

(*j*) Provision of Water Cask. Two boats were found without water cask. One of these cases was dealt with before the Magistrates, and in the other case, a cask was provided after issue of warning notice.

(*k*) Removal of Bilge Water. Attended to regularly.

(*l*) Notification of Infectious Disease. None.

(*m*) Admission of Inspector. As in former years there was no obstruction to the Inspector, who in almost every case was welcomed on board, and any information required was freely given.

(4) Legal Proceedings. Information was laid by the Inspector against the owner of the canal boats "Mary," and "John Edward." That there was no Registration Certificate on board either boat, that they were not lettered, marked or numbered, that the cabins were dirty, in want of paint, and thoroughly dilapidated, that there was no water cask on board the boat "John Edward," and that both boats were being used as dwellings.

Ultimately, summonses were issued and the cases came before the Magistrates, when the owner was fined for having used the boats as dwellings, without the same having been registered in accordance with the Canal Boats Acts, the said boats not being "lettered, marked or numbered" as required by

Section 7 of the 1884 Act. The fines imposed were :—

For so using the boat "Mary" on January 4th, 1898, 10/- fine and 12/6 costs. For so using the boat "John Edward" on January 1st and 5th, 1898, 20/- fine and 8/- costs for each occasion.

(5) Eleven warning notices and twelve letters have been issued to owners and masters requiring the remedying of the contraventions named therein, and the return of a Certificate sent therewith within a certain specified time, duly signed by a Canal Boats Inspector. Also verbal notice has been given by the Inspector for rectifying minor matters at the time of Inspection.

(6) No Cases of Infectious Disease to be dealt with or isolated.

(7) No Boats detained.

(8-9) No Register of Boats kept.

The arrangements made through the favour of the L. & N. W. Ry. Co., whereby their Lock-keeper at the entrance of the Huddersfield Canal, notifies to the Canal Boats' Inspector, boats entering the Canal and their destination has been continued through the past year.

Canal Boats Acts, 1877 and 1884.

HUDDERSFIELD REGISTRATION DISTRICT.

Appendix to Annual Report for the year 1898.

Number of Inspections made		290
Registered Accommodation—Aft. Cabins ...	953½	1537
Fore ,, ...	583½	
Population found on boats—Adults ...	617	740
Children ...	123	
Number of boats conforming to Acts and Regulations		277
Number of boats with one or more infringements		13

Total Number of Infringements met with ...	...	26
,, ,, remedied ...	...	14
,, dealt with by Magistrates ...	...	11
Number still under Notice December 31st, 1898 ...		1

Details of Infringements.	Number.	Dealt with by Magistrates.	Remedied.	Not Remedied.
Not Registered ...	2	2	...	...
Absence of Certificate	6	2	4	...
Non Identity	2	...	1	1
Marking	5	2	3	...
Painting required ...	7	2	5	...
Cabins dilapidated ...	2	2	...	...
Defective Water Cask	2	1	1	...
	26	11	14	1

Particulars of non-remedied infringement :—

Boat "Eric," 803 Goole. The particulars in the registration certificate produced did not agree with the Markings on the boat.

Survey of Watershed.

During the early part of the year, in consequence of the receipt of a circular from the Local Government Board, by the Waterworks Committee, in reference to an inspection of the Watershed, it was resolved that the circular be forwarded to me, and that I should make an inspection. I made an inspection accordingly, and the following is a copy of the report which I presented to the Waterworks Committee concerning the matter.

To the Chairman & Members of the
Waterworks Committee.

Mr. Chairman and Gentlemen,

In accordance with the request contained in the circular from the Local Government Board, which was referred for my consideration, I have to inform you that I have visited and inspected the whole of the watershed, and beg to report as follows :—

On February 11th, I went to Meltham, accompanied by Mr Schofield, the Waterworks Manager, and commencing at the beginning of the catch water, found at Upper Calders, some buildings on the lower side of the catch water, and, therefore, the drainage from these buildings falls away from the water area. At Wentworth, all the sewage is carried over the catch dyke, in a cast-iron pipe and empties about five yards lower than the catch dyke on to the surface of the ground. There is an overflow from the spring in the field just beyond this point, but as the spring is about 20 yards above, and on a higher level than the houses and buildings and it is piped from this point into the catch water about 10 yards from the sewage pipe it seems to be satisfactory.

Mr. William Hirst's farmstead and buildings (*a*) are all drained into a sump below the buildings. The overflow from which goes on to the surface of the land about 180 yards above the catch dyke. We were informed that there was no known drain down the field conveying this away. I found that there was a very boggy place apparently receiving this sewage half way down the field and, therefore, about 90 yards from the catch water. On examining the field below the catch water we again found evidence of this sewage travelling down the valley and on further examining we found that there were drain pipes laid, but, apparently these had become blocked up, and were not conveying the sewage away. I, therefore, suggested to Mr Schofield that a trial opening should be made on the lower side of the catch dyke, between the dyke and the fence, to try and find this line of drain pipes, and when found that they should be opened out and cleansed in order to effectually convey this sewage matter on to the lower side of the catch water. I find that on this farm they have chiefly sheep grazing, but also a variable number of cattle, sometimes, as many as 30 head of cattle, at the present time however there are only 11. In the lower field above mentioned there is also a spring which seems to come under the catch water, so that evidently there is some way underneath both for the spring water and should be for the sewage matter. We next came to the over-flow from the Meltham Waterworks, which also goes through this field, but, I was informed, it was carried along in properly jointed cast-iron or pot pipes all the way, presumably, therefore, the water should be free from contamination. Mr. Hirst's shooting box, higher up the valley, is also somewhat near the flow of water, and when it is occupied is liable to be a source of danger. I next found a small stream carried over the catch water in pipes near to Brow Grains. Mr. Schofield informed me that this water had been rejected some time ago by Mr. Jarmain, the Borough Analyst. Also found an ochre stream carried over near Deerhill Bents Road, this stream also appears to carry the drainage from Mr. Lockwood's shooting box, and, therefore, removes this source of contamination. We next came to the junction of the catch water from Marsden, near Mr. Lockwood's and Alderman Brigg's farms, and at this point inspected the lime mixing machine and shed, which appeared to be in proper working order. The machinery being very easily driven by means of the power obtained from 50ft. head of water, conveyed by means of a separate pipe. On the occasion of my visit about two million gallons of water per 24 hours was going on to the reservoir, lime being added in the proportion of two grains to the gallon. Alderman Brigg's farmsteads (*b*) one of which is unoccupied, and I am informed has been so for several years, should have the drainage from the premises turned out of the catch water at the present time, this could be easily done I believe and without any material loss of water. Mr. Charles Lockwood's farm (*c*) occupied by Mr. Patterson, Grange Farm, also requires its sewage taking out of the catch water. There seems to be a great deal of sewage matter at this point, as he keeps about 30 head of cattle, disposing of all his milk to the Crosland Moor Workhouse, this could easily be managed by a few yards of pipes conveying the sewage matter over the catch dyke. We went on further, past the junction of the catch water from Deer Hill, crossing over Lingards Brook. There are several properties on the lower side, but of course these are not likely to be a source of contamination. There is an unoccupied house higher up, but I am informed it has been so for 20 years or more and is not likely to be re-occupied. Two cottages, at Lower Slack, are drained by a pipe carried over the bridge on to the land below. The house and farm buildings owned by Lord Dartmouth, occupied by William Balmforth, Upper Slack (*d*) however, require proper drainage, this could easily be done by carrying the pipes, which drain the two cottages at Lower Slack, forward about 60 yards to the property at Upper Slack and connecting the whole. At present the sewage drains into two fields on either side of the buildings, and doubtless on the one side it gets into the overflow from the regulating tank below Deer Hill Reservoir from thence having a clear course, and being quickly washed into the catch water, on the other side, it gradually percolates along the surface of the ground towards the catch dyke. We went along Lingards Moor, past two low houses built on the lower side of the catch water tunnel, therefore, apparently satisfactory. There is a larger house on the upper side drained by pipes which are carried over the bridge and discharged below the catch dyke. The sewage from two blocks of larger houses on the upper side, where there are some water closets, is also carried over the catch dyke by a large iron pipe (there was a slight leakage near this iron pipe at the time of my visit but Mr. Schofield at once gave instructions to have this matter attended to). We went forward to the end of the 18in. pipe which supplies water from Wessenden Springs to Scout, but there are no other properties on the drainage area.

On another occasion we re-inspected the site of the drainage from Mr. Hirst's (*a*) property near the catch water at Meltham, and although the ground had been opened and a rubble drain was found, yet it did not seem to be conveying much sewage, and, therefore, thought it advisable that a trench should be dug some 20 or 30 yards along side to see if the drain could be found in another situation, and if found, made to run clear and thus carry the sewage definitely underneath the catch water.

Deer Hill Reservoir.—The two houses belonging to the Corporation, situated on the upper side of the reservoir, are drained by a pipe drain along the side of the road to a spot about 50 yards on the lower side of the reservoir, and thus the sewage is led clear away from the water. At the inlet from the catch water going into Deer Hill Reservoir is the lime shed, and the water gauge, and the place for putting in Carbonate of Lime. At the time of my inspection, water was going in about ½in. over the gauge, equalling 126 thousand gallons per day, for which a proportionate quantity of chalk was being added. Along the catch water from Deer Hill to Rams Clough there are about 11 cattle gates, which are the farmers' rights for grazing a certain number of cattle. The number grazing on the land draining into the catch water averages about 30 to 40 head of cattle per annum. Beyond Rams Clough up to the termination of the catch water is all sheep pasturage. There are no buildings or farmsteads on the land draining into the catch water.

Wessenden Reservoir.—No water goes from this reservoir at the present time for domestic use or for manufacturers, excepting what is given for compensation purposes, nor can there be until Butterley Reservoir is completed, when the over-flow will thus be utilized.

Wessenden Head Reservoir, similiarly cannot be made use of until the pipe is laid to Nettleton Hill to supply Scape Goat Hill district, which at the present time is of too high an elevation for the present supply.

Great Dyke Springs.—A portion of this water goes into No. 3 tank in Wessenden, from which the 9 inch pipe goes to supply Lindley, Golcar, Outlane, the upper part of Sheepridge and Fixby, by way of Marsden, Slaithwaite, and Milnsbridge; giving off a branch at Slaithwaite to supply Golcar. When Lindley pipe is fully charged the over-flow goes into another tank, and joining with a supply from Blakeley Clough also is conveyed into the 18 inch pipe going to Scout and thence to Blackmoorfoot.

At No. 2 tank the water going from No. 1 tank and from Blake Clough Filter-bed, which is screened on account of its peaty condition, is combined and goes thence to the No. 3 tank mentioned above.

BLAKE CLOUGH FILTER.—At this place chalk is added in proportionate quantity to the water going into these tanks, the water is screened before entering the tanks, and any surplus goes over the bye-wash and is piped, the 18 inch pipe going on to Scout and from thence to Blackmoorfoot. In time of flood the valve is so arranged as to close automatically and thus check the flow of untreated water. When Butterley Reservoir is completed and comes to be in use it will be necessary to provide for the drainage from Sir Joseph Crosland's shooting box and adjoining farmsteads.

LONGWOOD RESERVOIR CATCHMENT AREA.—The lower Longwood Reservoir appears to be used entirely for drawing off purposes. It has a wash out pipe for cleansing purposes, the waterman's house, situated on the lower side of the upper reservoir, is drained by pipes into a wash out tank belonging to the lower reservoir and thence into the Bunny Clough Brook.

The upper reservoir is used as a sort of sedimentation tank having the outlets from the springs discharging into it. The water stands in this tank a short time mixing with the lime, and is then run off as required into the lower tank for service supply purposes.

This reservoir has four springs now in use, the fifth one from Bunny Clough is cut off and the water diverted, and has been so for about 15 years going into Bunny Clough Brook.

No. 1 spring outlet on the south side of the reservoir is from Bet Rock on Green Edge, Nettleton Hill.

No. 2 spring outlet is from Earth Hill, at Nettleton Hill.

No. 3 from Bank End, Nettleton Hill.

No. 4 is from Petty Royds and Rounds Ings, which land belongs to the Corporation.

There are 12 compensation cattle troughs in various fields above this reservoir, the over-flows from which are generally again collected into various pipes conducting the water to the reservoir, which is a system that in my opinion it were better to discontinue.

The occupier of some of the land above this reservoir has at times used night-soil for manurial purposes, but as soon as this is perceived by the waterman he is asked to desist from the practise.

I would suggest that arrangements should be made that on no account should he or any other of the occupiers whose land drains into this reservoir use night-soil for manurial purposes.

The property at Green Edge appears to be drained into a clough from whence the sewage is piped to Bunny Clough Brook, and apparently this would be the reason for diverting the Bunny Clough Spring some 15 years ago.

Sir Percival Radcliffe's property, at Moles Head, at present drains on to the surface of the land, but could easily be got into above-mentioned channel.

Notices have been served upon this owner by the Sanitary Authority to connect up the house drainage with this sewer.

Mrs. Haigh's property, at Moles Head, is all drained into the sewer excepting the bottom house which requires connecting up. Notice has also been served requiring this to be done and it will be attended to.

All these properties have midden privies which are emptied by the Corporation, and this manure is disposed of to farmers in the neighbourhood, and spread on the land below, and therefore this is liable to contaminate the water.

I am arranging to have these privies converted to the tub system which would be preferable (and then by having them emptied regularly and the contents taken right away it would remove this pollution) although on account of the outlying position of these properties, it will entail considerable expense on the Sanitary Committee for the regular removal of the same.

Mr. John Haigh, of Slack, Outlane, has three houses at Moles Head which are drained onto a steep bank, and there the sewage spreads over the bank, and of course tends to get into the valley below.

In times of storm this sewage would be rapidly conveyed near to the reservoir. I would suggest that as this property is beyond the distance specified in the Huddersfield Improvement Act for compelling the owner to connect their property with the sewer. the Waterworks Committee should themselves pipe this sewage into the sewer above-mentioned, which is about 90 yards away.

Mr. Tom Thornby, of Scape Goat Hill, also has four houses in this situation which are drained into a well on the land just above Mr. John Haigh's property, this sewage then percolates through the ground on to the bank before mentioned. In times of storm the percolation is so rapid that the drinking trough which is situated on this bank becomes seriously contaminated so much so that the occupiers of these houses say that they are unable to use the water in this drinking trough as it is very dirty and offensive, and at times they have seen in the drinking trough visible portions of fœcal matter, and further, the children of the neighbourhood sometimes make use of this trough as a public urinal. The over-flow water from this trough is conveyed into the pipe, which enters Longwood Reservoir from spring No. 1.

I will bring up the whole matter before the Sanitary Committee, asking them to draw the attention of the Longwood District Committee to the need of the subsidiary sewer for these houses at Nettleton Hill, failing their dealing with the same, I would suggest that the Waterworks Committee in their own interest should either do this work at their own cost or endeavour to make arrangements with the Longwood Committee for the same.

The spring arising at Prospect is conveyed in a stone drain past Bank End into No. 3 pipe entering the reservoir.

At Bank End the sewage from the houses is all conveyed on to the open lands in grips, and into the plantation through which the stone water collecting drain passes, therefore there is no doubt whatever of its causing pollution of the water, and at this part the property is only about 200 yards from the corner of the reservoir, therefore the pollution will be very dangerous in its nature. I would suggest that the drainage for this property which is too low to be put into the Bunny Clough sewer should be conveyed along the road past Petty Royds.

A stone fresh water collecting drain commences at Round Ings and passing on the upper side of Petty Royds discharges through No. 3 outlet into the reservoir.

A branch drain is taken off the above, passing Petty Royds about 130 yards below the buildings and thence into No. 4 outlet, this latter branch is supposed to be pot pipe. The drainage from Petty Royds Farmsteads runs onto the surface of the land below and thus is liable to get into this pot pipe drain.

I would suggest that the sewer last suggested which was to pass Petty Royds should take up the sewage from these farm buildings and convey it past the pot pipe branch drain going to the reservoir, it might then discharge on the lower side without danger.

The sewage from Winns Gate and Billberry Hall also requires piping over the water collecting stone drain which is about 50 or 60 yards distant.

The stone collecting drain then goes to Crowl to the head spring in the plantation.

BLACKMOORFOOT RESERVOIR.—The waterman's house at the South Eastern corner is drained into a sump away from the reservoir in the direction of South Crosland.

Mr. Schofield's house drainage goes out below the embankment and is therefore away from the reservoir. Mr. Eli Mallinson's farm is drained into a tank and apparently does not go towards the reservoir at all. We may, however, get serious pollution by means of the land drains from his fields when they are manuring these fields, especially if heavy rain comes on at this time.

Mr. Robert Bradley's farm is all drained into a stream which runs into a tank in the shale field, from this it is piped through a 12 inch pipe to the No. 2 tank bye-wash, thence eventually getting into the River Holme, therefore, does not pollute the reservoir.

The drainage from New Inn, owned by Mr. J. W. Dyson, is taken similarly to the last, by means of the same tanks and pipes.

The farmstead adjoining is also drained in the same manner.

Mr. Edward Brook's farm, and Mr. George Todman's house, are also connected to this drain and, therefore, the whole of the sewage is conveyed away from the reservoir.

Two cottages belonging to the estate of the late Mr. S. Waterhouse (*e*) appear to be drained into the catch water, and are situated about 300 yards therefrom. They are inhabited by about seven persons.

I am unable to make any suggestions likely to prove a satisfactory solution of the difficulty of this drainage as these houses are surrounded on all sides by the catchment area. Unless, of course, the Corporation should think it well to purchase the properties and let them stand empty.

It might be a slight improvement if the drainage was taken into a tank and this tank regularly emptied, the contents being taken off the catchment area.

REMARKS.—In regard to the drainage of the various properties I have made suggestions during the course of the report, therefore they need not be repeated, but I would further say that of course the best and most satisfactory way of dealing with the whole matter is for the Corporation to purchase the whole of the catchment area and then they would be able to have absolute control. Failing this I would suggest that arrangements should be made with the different owners and occupiers having stringent requirements in respect to the manuring of the land, also that arrangements should be made whereby all cases of infectious disease occurring in the families of those residing on the water shed especially diseases such as Typhoid Fever, Cholera, and Choleraic Diarrhœa should be immediately notified to the Waterworks Manager who would then be able to confer with the Medical Officer of Health as to the best means of dealing with the infectious cases as the occasion arose, in order to prevent pollution of the water. As some of the districts in the water shed may not have adopted the Infectious Diseases Notification Act, it seems to me the best way of obtaining this knowledge is by making it a condition with the individual occupiers and owners themselves. Of course the men in the employ of the Waterworks Manager would also be on the alert, and when they heard of any case of serious illness might immediately inform the Waterworks Engineer; further, I think it would be desirable to arrange with Mr. McKinna, the Veterinary Inspector under the Board of Agriculture so that on the occurance of any diseases in cattle on the water shed, especially diseases scheduled under the Contagious Diseases Animals Act he might forthwith acquaint the Waterworks Manager, so that steps might be taken to guard against contamination of the water by carelessly burying these diseased animals on the water shed.

I would further suggest that regular, periodical, say monthly, Chemical and Bacteriological Analyses be made of the water supply.

These samples to be taken by independent persons, say by the Inspector acting under the Food and Drugs Act, or myself, which should then be submitted to the above-mentioned Analysis, so that a regular tabulated statement would be in the possession of the Corporation showing the quality of the water as distributed, and then any slight deviation from the average would easily be perceived and could be taken notice of and enquired into.

The analyses at present obtained are not suitable for this purpose as I understand the water is only analysed after having been in contact with a long length of lead pipe for a definite time.

This analysis, of course, is of a certain value, shewing the small amount of lead which is taken up under these extreme conditions, but I would suggest that the independent sample for analysis should be taken from any consumers' pipes in the area of supply.

I am,
Mr. Chairman and Gentlemen,
Yours respectfully,
ERNEST G. ANNIS,
Medical Officer of Health.

Health Office, Ramsden Street,
Huddersfield, March 1st, 1898.

From the above report it will be seen that there were several matters which appeared to require immediate attention. First and foremost amongst which was the filthy sanitary accommodation at Nettleton Hill, which I am pleased to say has received the attention of the Sanitary Committee, and the whole of the Privies in the neighbourhood have been altered to the Tub Closet system, so that the excreta is now collected, and taken out of the district altogether. In reference to the drainage, and slop waters in the same neighbourhood, that matter also has received the attention of the District Committee concerned, and they are at the present time negotiating for the necessary easements, in order to enable them to construct a sewer to remove the Sewage matters from the neighbourhood, and thus avoid any possibility of contaminating the water.

I have made further inspections of other matters complained of, and now find that my suggestions for dealing with the same have in many instances been already carried out, and in other instances the work is in hand, so that I think in the very near future there will be very little chance of our water supply becoming contaminated.

(*a*) The drainage from the Farmstead belonging to Mr. Wm. Hirst, Meltham, has been satisfactorily found, and it turns out to be conveyed by a large stone drain quite underneath the catch water, and therefore does not cause pollution.

(*b*, *c* & *e*) I am informed by the Waterworks Manager that these matters have now been satisfactorily attended to, and are awaiting my further inspection.

(*d*) This matter is being attended to at the present time.

Number of Lodgers using the Common Lodging Houses since 1882.

Date.	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898
January	5139	5586	5944	5638	5235	5942	7246	6307	7011	6994	7611	6556	5821	6108	5963	6677	6486
February ..	5140	5356	5569	5611	4962	5449	6335	6110	6180	6111	6933	5754	5282	5841	5815	5908	5908
March......	5539	5864	5638	5646	5177	6232	6781	7044	7092	6988	7633	6318	5658	6422	6332	6549	6658
April	5288	5710	5510	5360	5441	5476	6615	6611	6857	6405	7546	6191	5632	5811	6069	6687	6548
May........	5152	5792	5666	5630	5490	5893	6793	6653	6711	6914	6662	6052	5814	5773	6237	7210	7038
June	4322	5773	5649	5616	4965	6094	6412	6498	6351	6910	6036	5714	5278	5775	6691	6058	6798
July........	4381	5658	5386	5022	5354	6143	6911	6241	6319	7115	5946	5917	5440	5987	6664	6472	6601
August	4698	5389	5379	5003	5777	6056	6838	6086	6545	7261	5684	5710	5192	5898	6786	6342	6567
September ..	5088	5617	5511	4922	5244	6811	6362	5822	6306	7346	5698	5621	5647	5363	6761	5963	6573
October	5585	5579	5355	4810	5995	7408	6515	6600	6872	6783	5987	5867	5685	6015	7123	5629	6671
November ..	5633	5043	5250	4987	5774	7025	6549	6635	6432	6879	6329	5885	5482	6329	6940	5476	6745
December ..	5474	5461	5352	5194	5737	7095	6470	6927	6905	7515	6033	5860	5767	6224	6957	6332	7218
Total	61,439	66,328	66,209	63,439	65,151	75,624	79,827	77,534	79,581	83,221	78,098	71,445	66,698	71,546	78,338	75,303	79,811

TABLE I.

Return of Births and Deaths Registered during the thirteen weeks ended 2nd April, 1898.

DISTRICTS.	Census Population, 1891.	Estimated Population at the middle of the year 1898.	Births Registered during the 13 weeks ended 2nd April, 1898.	Deaths Registered during the 13 weeks ended 2nd April, 1898.	AGE MORTALITY.			SEVEN ZYMOTIC DISEASES.								Phthisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease	Cancer.	All other Diseases.	Rate of Mortality per 1000.			
					Under 1 year.	Over 1 and under 5 years.	Persons aged 50 years and upwards.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fevers.		Diarrhœa.						All Causes.		Seven Zymotics	
													Typhoid.	Other.							During the corresponding period year previous.	During the 13 weeks ended 2nd April, 1898.	During the corresponding period year previous.	During the 13 weeks ended 2nd April, 1898.
Huddersfield (Central)	25,909	27,315	181	131	25	20	56	..	8	2	2	1	..	..	..	5	27	11	7	68	19·09	19·25	0·89	1·91*
Marsh	8,330	8,989	50	27	7	3	11	..	2	..	..	..	..	..	1	5	8	1	1	9	11·73	12·05	0·45	1·34
Fartown	9,584	10,225	52	40	5	9	14	..	..	..	2	1	1	..	..	4	9	5	1	17	17·78	15·70	1·18	1·57‡
Deighton and Bradley	2,273	2,473	14	10	1	1	4	..	..	..	1	..	..	..	..	..	..	1	..	8	11·56	16·23	..	1·62
Dalton	8,413	9,207	57	30	8	4	11	.	..	1	1	..	1	..	..	1	8	1	1	16	20·74	13·08	0·44	1·31
Almondbury	14.856	15,838	103	53	7	6	21	..	..	..	..	..	..	..	.	4	14	5	4	26	15·13	13·43	1·28	..
Lockwood	12,076	13,135	81	58	16	9	20	.	7	..	..	..	..	..	1	3	18	5	1	23	16·08	17·72	0·31	2·44°
Lindley	8,575	9,288	31	33	10	6	11	..	2	..	1	1	..	..	..	2	10	3	3	11	10·45	14·26	0·43	1·73
Longwood	5,406	5,984	31	17	7	3	4	..	1	..	1	..	..	..	..	..	4	1	1	9	6·79	11·40	..	1·34
Infirmary (Central)	..	..	..	19	..	.	9	..	..	..	..	..	..	..	..	1	1	2	..	15	..	..	..	..
Hospital (Fartown)		..	..	4	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Workhouse(Lockwood)	..	..	1	20	..	..	16	..	..	..	..	..	..	..	..	4	5	..	..	11	..	..	..	..
Borough	95,422	102454	601	442	86	61	177	..	20	6	8	3	2	..	2	29	104	35	19	214	..	..	..	..
Rate per 1000 of Estimated Population	..	..	23·54	17·31	..	..	..	..	0·78	0·23	0·31	0·12	0·08	..	0·08	1·14	4·07	1·37	0·74	8·38	17·84	17·31	0·95	1·60

* Central, with Infirmary, 22·04.
‡ Fartown, with Fever Hospital, 17·27.
° Lockwood, with Workhouse, 23·83.

Deaths of Children under one year per 1000 births, 143.
,, previous corresponding period, 124.

Death Rate of 33 large English towns, 20·62.
Death Rate (Zymotic) ,, 2·38.
Birth Rate ,, 31·32.

TABLE II.

Return of Births and Deaths Registered during the thirteen weeks ended 2nd July, 1898.

DISTRICTS.	Census Population, 1891.	Estimated Population at the middle of the year 1898.	Births Registered during the 13 weeks ended 2nd July, 1898.	Deaths Registered during the 13 weeks ended 2nd July, 1898.	AGE MORTALITY.			SEVEN ZYMOTIC DISEASES.								Phthisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Cancer.	All other Diseases.	Rate of Mortality per 1000.			
					Under 1 year.	Over 1 and under 5 years.	Persons aged 50 years and upwards.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fevers.		Diarrhœa.						All Causes.		Seven Zymotics	
													Typhoid.	Other.							During the corresponding period year previous.	During the 13 weeks ended 2nd July, 1898.	During the corresponding period year previous.	During the 13 weeks ended 2nd July, 1898.
Huddersfield (Central)	25,909	27,315	147	103	15	5	45	..	2	..	..	..	..	..	..	10	22	8	6	55	16·57	15·13	1·48	0·29*
Marsh	8,330	8,989	47	20	3	2	9	..	..	..	..	.	..	..		1	5	3	1	10	15·79	8·93	1·35	..
Fartown	9,584	10,225	44	35	3	2	25	..		..	..	..	..		..	2	7	2	2	22	13·83	13·74	1·58	. ‡
Deighton & Bradley ..	2,273	2,473	12	12	1	3	7		..	..	..	..	..		..	.	5	1	..	6	6·60	19·47	.	..
Dalton	8,413	9,207	57	26	7	4	7	..	..	..	..	1	..		..	3	7	5	..	10	15·00	11·33	0·44	0·43
Almondbury	14.856	15,838	85	50	5	8	24	..	..	..	1	..	1	..	..	5	12	3	3	25	14·11	12·67	..	0·51
Lockwood	12,076	13,135	93	54	10	12	22	.	3	..	1	..	..	..		5	12	3	5	25	13·30	16·50	0·31	1 22°
Lindley	8,575	9,288	44	30	7	3	15		..		..	..	.	..	.	1	6	3		20	10·88	12·96	1·31	..
Longwood	5,406	5,984	29	23	2	2	7	..	..	..	..	..	..	..	..	1	3		2	17	11·54	15·43	..	..
Infirmary (Central) ..	..	..	..	24	..	3	9		..	..	..	..	..		..	..	3	1	1	19	..	.	..	..
Hospital (Fartown) ..	..	..	..	2	..	2	..		..	2	..	..	..			..	..	..			..	..	..	..
Workhouse(Lockwood)	..	..	3	25	..	..	23		..	..	..	..	..	..	1	1	4	2	1	16	..		..	
Borough	95,422	102454	561	404	53	46	193	.	5	2	2	1	1		1	29	86	31	21	225	..	..	..	.
Rate per 1000 of Estimated Population..	..	..	21·98	15·83	..	..	..		0·19	0·08	0·08	0·04	0·04		0·04	1·14	3·37	1·21	0·82	8·81	16 22	15·83	1·15	0·47

* Central, with Infirmary, 18·66.
‡ Fartown, with Fever Hospital, 14·52.
° Lockwood, with Workhouse, 24·14.

Deaths of Children under one year per 1000 births, 94.
„ previous corresponding period, 112.

Death Rate of 33 large English Towns, 17·07.
Death Rate (Zymotic) „ 1·88.
Birth Rate „ 30·03.

TABLE III.

Return of Births and Deaths Registered during the thirteen weeks ended 1st October, 1898.

DISTRICTS.	Census Population, 1891.	Estimated Population at the middle of the year 1898.	Births Registered during the 13 week ended 1st Oct., 1898.	Deaths Registered during the 13 weeks ended 1st Oct., 1898.	AGE MORTALITY.			SEVEN ZYMOTIC DISEASES.								Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Cancer.	All other Diseases.	Rate of Mortality per 1000.			
					Under 1 year.	Over 1 and under 5 years.	Persons aged 50 years and upwards.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fevers.		Diarrhœa.						All Causes.		Seven Zymotics	
													Typhoid.	Other.							During the corresponding period year previous.	During the 13 weeks ended 1st Oct., 1898.	During the corresponding period year previous.	During the 13 weeks ended 1st Oct., 1898.
Huddersfield (Central)	25,909	27,315	165	119	40	8	40	..	..	..	..	..	..	..	19	11	15	9	10	55	13·61	17·49	2·52	2·79*
Marsh	8,330	8,989	47	28	8	2	12	..	..	..	..	..	..	..	6	4	5	2	2	9	12·64	12·50	1·80	2·68
Fartown	9,584	10,225	59	37	12	2	18		..	..	..	..	..	..	7	1	4	3	2	20	11·46	14·52	1·18	2·75‡
Deighton and Bradley	2,273	2,473	7	10	1	1	4	.	..	..	..	..	..	..	2	..	..	1	..	7	3·30	16·23	1·65	3·25
Dalton	8.413	9,207	54	34	17	..	6		..	..	..	1	..	..	7	3	3	1	1	18	14·12	14·82	2·65	3·49
Almondbury	14,856	15,838	92	39	12	3	19		..	..	1	1	1		2	4	4	6	2	18	12·05	9·88	1·28	1·27
Lockwood	12,076	13,135	84	45	13	6	14		..	..	..	..	1	..	10	5	6	1	4	18	12·99	13·75	0·93	3·36°
Lindley	8,575	9,288	38	25	1	5	15	..	..	1		..	..	.	1	1	6	4	..	12	13·50	10·80	1·74	0·86
Longwood	5,406	5,984	30	25	12	1	5	..	..	..	..	..	..	..	2	2	2	3	..	16	10·87	16·77	1·36	1·34
Infirmary (Central) .	..	..	..	15	1	..	6		..	..	1	..	..	..	..	..	1	1	2	10	..	..	..	..
Hospital (Fartown) .	..	..		3	..	1	..		..	1	..	..	2	..	..	..	.		..	..	..	..	..	..
Workhouse(Lockwood)	..	..	2	19	1	..	12	.	..	..	..		..	..	2	3	3	1	..	10	..	..	..	..
Borough	95,422	102454	578	399	118	29	151		..	2	2	2	4	..	58	34	49	32	23	193	..	..	..	
Rate per 1000 to Estimated Population	..	..	22·64	15·63	..	..	..	..	..	0·08	0·08	0·08	0·16	..	2·27	1·33	1·92	1·25	0·90	7·56	13·77	15·63	2·02	2·66

* Central, with Infirmary, 19·69.	Deaths of Children under one year per 1000 births, 204.	Death Rate of 33 large English towns, 20·36.
‡ Fartown, with Fever Hospital, 15·70.	,, previous corresponding period, 132.	Death Rate (Zymotic) ,, 4·94.
° Lockwood, with Workhouse, 19·55.		Birth Rate ,, 30·37.

TABLE IV.

Return of Births and Deaths Registered during the thirteen weeks ended 31st December, 1898.

DISTRICTS.	Census Population, 1891.	Estimated Population at the middle of the year 1898.	Births Registered during the 13 weeks ended 31st Dec., 1898.	Deaths Registered during the 13 weeks ended 31st Dec., 1898.	AGE MORTALITY.			SEVEN ZYMOTIC DISEASES.								Phthisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Cancer.	All other Diseases.	Rate of Mortality per 1000.			
													Fevers.								All Causes.		Seven Zymotics.	
					Under 1 year.	Over 1 and under 5 years.	Persons aged 50 years and upwards.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhoid.	Other.	Diarrhœa.						During the corresponding period year previous.	During the 13 weeks ended 31st Dec., 1898.	During the corresponding period year previous.	During the 13 weeks ended 31st Dec., 1898.
Huddersfield (Central)	25,909	27,315	132	81	19	15	24	..	..	..	..	2	..	..	5	8	23	5	1	37	16·28	11·90	2·22	1·03*
Marsh	8,330	8,989	35	24	8	1	12	..	..	..	..	..	..	..	4	3	3	4	..	10	20·76	10·72	0·90	1·79
Fartown	9,584	10,225	50	27	7	..	13	..		..	..		..	.	2	4	5	1	1	14	16·99	10·60	1·97	0·78‡
Deighton & Bradley ..	2,273	2,473	12	8	..	3	3	..	2	..	..	..	..	..	..	1	1	1	..	3	13·21	12·98	..	3·24
Dalton	8,413	9,207	59	37	8	6	13	..	3	..	1	2	..	..	1	2	7	3	3	15	15·44	16·13	0·88	3·05
Almondbury	14,856	15,838	103	64	21	6	23	.	2	..	1	1	1	..	..	3	12	9	2	33	14·62	16·22	1·02	1·27
Lockwood	12,076	13,135	83	56	18	7	13	.	..	..	..	..	..	..	1	8	11	4	2	30	17 32	17·11	..	0·30°
Lindley	8,575	9,288	45	20	7	2	10		..	..	..	..	..	..	1	2	2	1	3	11	17·41	8·64	3·05	0·43
Longwood	5,406	5,984	31	22	4	1	10		..	..	..	..	..	..	..	1	6	3	1	11	7·47	14·76	..	..
Infirmary (Central) ..	..	..	..	21	1	1	11	..	..	..	..	..	..	..	..	1	2	..	1	17	..	..	..	..
Hospital (Fartown) ..	.	..	..	2	..	..	..		..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..
Workhouse(Lockwood)	..	..	5	18	1	1	14	..	..	..	..	..	..	..	2	1	4	1	3	7	..	..	..	..
Borough	95,422	102454	555	380	94	43	146	..	7	..	2	5	3	..	16	34	76	32	17	188	..	..	..	..
Rate per 1000 of Estimated population..	..	..	21·74	14·89	..	..	..	..	0·27	..	0·08	0·20	0·12	..	0·63	1·33	2·98	1·25	0·67	7·36	18·08	14·89	1·78	1·29

* Central, with Infirmary, 14·99.
‡ Fartown, with Fever Hospital, 11·38.
° Lockwood, with Workhouse, 22·61.

Deaths of Children under one year per 1000 births, 169.
„ previous corresponding period, 159.

Death Rate of 33 large English Towns, 18·11.
Death Rate (Zymotic) „ 2·14.
Birth Rate „ 29·68.

TABLE V.

Return of Births and Deaths Registered during the fifty-two weeks ended 31st December, 1898.

DISTRICTS.	Census Population, 1891.	Estimated Population at the middle of the year 1898.	Births Registered during the 52 weeks ended 31st Dec., 1898.	Deaths Registered during the 52 weeks ended 31st Dec., 1898.	AGE MORTALITY.			SEVEN ZYMOTIC DISEASES.								Phthisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Cancer.	All other Diseases.	Rate of Mortality per 1000.			
					Under 1 year.	Over 1 and under 5 years.	Persons aged 50 years and upwards.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fevers.		Diarrhœa.						All Causes.		Seven Zymotics.	
													Typhoid.	Other.							During the corres-ponding period year previous.	During the 52 weeks ended 31st Dec., 1898.	During the corres-ponding period year previous.	During the 52 weeks ended 31st Dec., 1898.
Huddersfield (Central)	25,909	27,315	625	434	99	48	165	..	10	2	2	3	..	..	24	34	87	33	24	215	16·39	15·94	1·77	1·51*
Marsh	8,330	8,989	179	99	26	8	44	..	2	..	..	..	..	..	11	13	21	10	4	38	15·23	11·05	1·13	1·45
Fartown	9,584	10,225	205	139	27	13	70	..	..	..	2	1	1	..	9	11	25	11	6	73	15·02	13·64	1·48	1·27‡
Deighton & Bradley..	2,273	2,473	45	40	3	8	18	..	2	..	1	..	..	..	2	1	6	4	..	24	8·67	16·23	0·41	2·03
Dalton	8,413	9.207	227	127	40	14	37	..	3	1	2	4	1	..	8	9	25	10	5	59	16·33	13·84	1·10	2·07
Almondbury	14,856	15,838	383	206	45	23	87	..	2	..	3	2	3	..	2	16	42	23	11	102	13·98	13·05	0·90	0·76
Lockwood	12,076	13,135	341	213	57	34	69	..	10	..	1	..	1	..	12	21	47	13	12	96	14·92	16·27	0·39	1·83°
Lindley	8,575	9,288	158	108	25	16	51	..	2	1	1	1	..	..	2	6	24	11	6	54	13·06	11·67	1·63	0·76
Longwood	5.406	5,984	121	87	25	7	26	..	1	..	1	..	..	..	2	4	15	7	4	53	9·17	14·59	0·34	0·67
Infirmary (Central) ..	..	..	..	79	2	4	35	..	..	..	1	..	..	..	..	2	7	4	4	61	..	..	..	..
Hospital (Fartown) ..	..	..	..	11	..	3	..	..	..	6	..	..	4	..	..	..	..	..	..	1	..	..	..	..
Workhouse(Lockwood)	..	..	11	82	2	1	65	..	..	..	..	..	..	..	5	9	16	4	4	44	..	..	..	..
Borough	95,422	102454	2295	1625	351	179	667	..	32	10	14	11	10	..	77	126	315	130	80	820	..	..	..	..
Rate per 1000 of Estimated Population..	..	..	22·48	15 91	..	..	..	..	0·31	0·10	0·14	0·11	0·10	..	0·75	1·23	3·08	1·27	0·78	8·03	16·48	15·91	1·47	1·51

* Central, with Infirmary, 18·84.
‡ Fartown, with Fever Hospital, 14·72.
° Lockwood, with Workhouse, 22·53.

Deaths of Children under one year per 1000 births, 153.
,, previous corresponding period, 132.

Death Rate of 33 large English Towns, 19 04.
Death Rate (Zymotic) ,, 2·84.
Birth Rate ,, 30·35.

TABLE VI.

Classification of Deaths Registered during the 52 weeks ended January 1st, 1899.

	Central Hud-dersfield		Marsh		Fartown		Deight'n and Bradley		Dalton		Almond-bury		Lock-wood		Lindley		Long-wood		In-firmary		Hospital		Work-house		Totals		Totals for Borough.
	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	
Class I.—ZYMOTIC DISEASES.																											
Order 1—Miasmatic	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1 Small Pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2 Measles	9	1	2	..	..	..	2	..	2	1	2	..	9	1	2	..	1	..	..	..	..	..	..	..	29	3	32
3 Scarlet Fever	1	1	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	3	3	..	..	5	5	10
4 Diphtheria	2	..	..	..	2	..	1	..	1	1	3	..	1	..	..	1	1	..	1	..	..	..	..	..	12	2	14
5 Whooping Cough	3	..	..	..	1	..	..	..	4	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	11	..	11
6 Simple Continued and Ill-D. F.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
7 Enteric or Typhoid Fever	..	..	..	..	1	..	..	..	..	1	..	3	..	1	..	..	..	..	..	..	..	4	..	..	1	9	10
8 Other Miasmatic Deseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Order 2—Diarrhœal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1 Diarrhœa, Dysentery	21	3	9	2	8	1	2	..	7	1	2	..	12	..	2	..	2	..	..	..	..	..	1	4	66	11	77
Order 3—Malarial (Influenza)	..	7	..	..	..	3	..	..	..	..	..	1	..	1	..	3	..	2	..	..	..	..	..	1	..	18	18
Order 4—Venereal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1 Syphilis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	2
Order 5—Septic	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1 Erysipelas	1	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2	1	3
2 Pyæmia, Septicæmia	..	2	..	..	..	..	..	..	..	3	1	..	..	2	..	1	..	..	..	..	..	..	..	..	1	8	9
3 Puerperal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
II.—PARASITIC DISEASES	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
III.—DIETIC DISEASES—1 Plumbism	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
2 Alcoholism	..	3	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	7	7
IV.—CONSTITUTIONAL DISEASES.																											
1 Rheumatic Fever, Rheu. Heart	1	2	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	6	7
2 Rheumatism	1	2	..	1	..	1	..	1	..	..	..	1	..	2	..	..	..	..	..	1	..	..	..	..	1	9	10
3 Gout	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
4 Cancer, Malignant Disease	..	24	..	4	..	6	..	..	..	5	..	11	..	12	..	6	..	4	..	4	..	..	..	4	..	80	80
5 Tabes Mesenterica	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	4	..	4
6 Tubercular Meningitis, &c.	2	3	..	..	1	..	..	..	..	..	6	2	..	2	..	..	..	..	..	1	..	..	..	..	9	8	17
7 Phthisis	2	32	..	13	1	10	..	1	..	9	1	15	3	18	..	6	..	4	..	2	..	..	..	9	7	119	126
8 Other forms of Tuberculosis, &c.	3	4	..	..	..	1	..	..	1	2	..	1	..	3	2	3	..	2	..	3	..	..	1	1	7	20	27
9 Glycosuria, Diabetes Mellitus	..	2	..	1	..	..	..	..	..	1	..	1	..	1	..	1	..	1	..	..	..	..	..	..	..	8	8
10 Other Constitutional Diseases	3	2	..	..	..	..	..	..	1	1	1	1	1	3	..	..	1	2	..	..	..	..	..	1	7	10	17
V.—DEVELOPMENTAL DISEASES.																											
1 Premature Birth	13	..	2	..	3	..	..	..	8	..	9	..	11	..	4	..	5	..	..	..	..	..	..	..	55	..	55
2 Congenital Malformations	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	1	1	..	..	..	..	..	..	3	2	5
3 Old Age	..	24	..	6	..	16	..	2	..	6	..	15	..	5	..	8	..	6	..	6	..	..	..	18	..	112	112
VI.—LOCAL DISEASES. Order 1—Nervous System	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1 Inflammation of Brain, &c.	3	7	3	1	..	1	1	1	..	..	1	1	3	1	3	4	..	1	..	1	..	..	..	2	14	20	34
2 Apoplexy, &c.	..	20	..	6	..	9	..	3	..	4	..	11	..	8	..	3	..	..	..	1	..	..	..	1	..	66	66

3	Hemiplegia	..	5	..	2	..	..	..	1	..	2	..	3	..	3	..	2	..	2	..	..	..	..	..	..	..	20	20
4	Epilepsy	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	4	5
5	Convulsions	20	..	3	..	5	..	1	2	5	1	5	.	9	..	5	..	4	..	..	..	.	..	..	..	57	3	60
6	Laryngismus Stridulus	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1
7	Disease of Spinal Cord, &c.	..	2	..	..	.	1	..	..	..	1	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	7	7
8	Other Diseases	..	3	..	2	..	1	..	..	..	..	..	1	..	3	..	..	..	..	..	1	..	..	..	..	..	11	11
	Order 2—Organs of Special Sense	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Order 3—Circulatory System	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	Pericarditis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	Acute Endocarditis		1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2	2
3	Valvular Diseases of Heart	..	27		8	..	8	..	4	..	10	..	17	.	9	.	10	..	7	..	4	..	..	..	4	..	108	108
4	Other Diseases of Heart	..	6	..	2	..	3	..	..	..	..	..	6	1	3	..	1	..	..	..	..	..	..	..	..	1	21	22
5	Aneurism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6	Embolism, Thrombosis	..	1	..	..	..	.	..	..	..	..	.	1	..	..	..	..	..	3	..	3	..	..	..	3	..	11	11
	Order 4—Respiratory System	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	Laryngitis	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
2	Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3	Emphysema, Asthma	..	1	..	..	..	1	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	5	5
4	Bronchitis	23	28	9	8	6	10	1	3	7	11	8	16	18	17	8	4	6	6	2	1	..	..	..	13	88	117	205
5	Pneumonia	11	21	..	4	2	7	2	..	3	3	7	11	7	4	4	7	1	2	..	3	..	..	..	3	37	65	102
6	Pleurisy	..	4	..	..	..	..	..	..	..	1	..	..	..	1	..	1	.	..	..	1	..	..	..	..	..	8	8
	Other Diseases of Respiratory System	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..	2
	Order 5—Digestive System	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	Dentition	3	..	3	..	2	..	..	..	1	..	2	..	2	..	3	..	3	..	..	..	..	..	..	..	19	..	19
2	Sore Throat, Quinsy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3	Diseases of St mach	2	2	..	1	..	1	..	..	1	..	1	1	2	1	1	1	1	1	..	1	..	..	..	..	8	9	17
4	Enteritis	2	1	..	..	1	..	..	..	5	1	4	1	1	2	..	..	..	1	..	..	..	..	..	..	13	6	19
5	Obstructive Disease of Intestine	..	2	..	..	1	1	..	..	..	..	1	2	..	1	..	..	..	..	..	9	..	..	..	..	2	15	17
6	Peritonitis	..	..	..	..	..	..	..	..	..	2	..	1	..	1	1	..	..	..	..	..	..	..	..	..	1	4	5
7	Ascites	.	..	..		..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
8	Cirrhosis of Liver	..	6	..	..	..	2	..	..	..	1	..	2	..	1	..	..	..	..	..	..	..	1	..	..	..	13	13
9	Jaundice, &c.	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	3	3
10	Other Diseases of Digestive System	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	3	3
	Order 6—Lympathic System (Spleen)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Order 7—Urinary System	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	Nephritis	..	4	..	1	..	..	..	2	..	..	1	3	..	6	..	..	..	..	1	..	..	..	..	..	2	16	18
2	Bright's Desease, Albuminuria	..	5	..	1	..	5	..	1	..	1	..	4	..	2	..	..	..	3	..	1	..	..	..	1	..	24	24
3	Disease of Bladder	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	4	4
4	Other Diseases of Urinary System	..	..	..	..	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	1	3	4
	Order 8—Reproductive System	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
A.	Of Organs of Generation.																											
1	Male Organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	Female Organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	..	..	..	5	5
B.	Parturition.																											
1	Puerperal Convulsions	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
2	Placenta prævia, Flooding	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
3	Other Accidents of Child Berth	..	1	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3

TABLE VI.—*Continued.*

	Central Hud-dersfield		Marsh		Fartown		Deight'n and Bradley		Dalton		Almond-bury		Lock-wood		Lindley		Long-wood		In-firmary		Hospital		Work-house		Totals		Totals for Borough.
	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	
Order 9—Bones and Joints	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	1	..	6	6
Order 10—Integumentary System	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	2
VII.—DEATHS FROM VIOLENCE.																											
Order 1—Accident or Negligence	2	14	..	..	..	3	..	5	..	1	..	2	..	3	1	..	2	2	1	14	..	..	..	..	6	44	50
Order 2—Homicide	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Order 3—Suicide	..	3	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2	..	..	..	..	..	7	7
VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES.																											
1 Dropsy..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
2 Debility, Atrophy, Inanition	12	1	3	..	5	..	1	..	5	..	9	..	8	..	3	..	3	..	..	..	..	..	1	..	50	1	51
3 Mortification	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4 Tumour	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5 Abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	1	2
6 Hæmorrhage	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
7 Sudden Death	..	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
8 Causes not Specified or Ill-defined	1	2	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	3	5
Totals	147	287	34	65	40	99	11	29	54	73	68	138	91	122	41	67	32	55	6	73	3	8	3	79	530	1095	1625
Totals at all Ages	434		99		139		40		127		206		213		108		87		79		11		82		1625		

TABLE VII.

Death Rate per 1000 per annum for 1898 and eighteen previous years.

	Estimated Population at the middle of the Year.	From all causes and at all ages.	Children under 1 year.	Children over 1 year and under 5 years.	In Persons aged 50 years and upwards.	ZYMOTIC DISEASES.							Seven Zymotic Diseases.	Violence and Accidents.	Consumption and Diseases of the Breathing organs.
						Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhœa.			
1898	102,454	15·91	3·44	1·75	6·53	...	0·31	0·10	0·14	0·11	0·10	0·75	1·51	0·56	4·32
1897	101,454	16·48	3·09	1·63	6·39	...	0·26	0·33	0·21	0·20	0·16	0·33	1·47	0·45	4·74
1896	100,463	16·78	3·44	2·14	6·55	...	0·26	0·19	0·25	0·54	0·13	0·32	1·69	0·47	5·22
1895	99,482	17·14	3·43	1·87	6·71	...	0·12	0·20	0·19	0·21	0·06	0·51	1·30	0·45	4·95
1894	98,511	15·92	3·24	1·87	5·72	...	0·13	0·23	0·27	0·56	0·11	0·18	1·52	0·39	4·65
1893	97,552	17·43	3·34	2·00	6·66	0·02	0·26	0·26	0·03	0·13	0·14	0·53	1·38	0·37	5·42
1892	96,599	18·14	3·49	2·56	6·89	0·01	0·71	0·19	0·07	0·30	0·06	0·19	1·53	0·48	5·69
1891	95,656	22·96	4·51	3·50	8·62	...	1·12	0·31	0·05	0·62	0·16	0·11	2·38	0·66	7·64
1890	94,253	18·84	3·83	2·19	7·02	0·01	0·04	0·07	0·05	0·42	0·25	0·39	1·23	0·48	6·58
1889	92,825	18·79	4·15	2·78	6·33	...	0·98	0·28	0·13	0·16	0·11	0·36	2·02	0·38	5·95
1888	91,419	18·51	3·90	2·80	6·37	0·02	0·36	0·29	0·15	0·41	0·13	0·19	1·55	0·65	5·40
1887	90,034	22·99	5·06	4·42	6·70	...	1·39	0·35	0·46	0·68	0·10	0·41	3·39	0·51	7·26
1886	88,670	19·54	4·49	2·76	6·30	...	0·19	0·37	0·14	0·32	0·14	0·48	1·63	0·79	6·38
1885	87,327	20·05	4·62	2·84	6·79	...	0·65	0·13	0·05	0·29	0·11	0·20	1·42	0·74	6·50
1884	86,004	19·54	4·84	2·55	6·34	...	0·18	0·08	0·05	0·70	0·14	0·63	1·77	0·57	5·65
1883	84,450	21·38	5·14	3·09	6·52	...	0·39	0·08	0·04	0·55	0·18	0·44	1·68	0·58	7·65
1882	83,271	22·39	5·64	3·93	6·60	...	0·96	0·26	0·07	0·64	0·18	0·53	2·63	0·65	6·81
1881	82,113	20·35	4·67	2·82	6·54	...	0·09	0·21	0·04	0·42	0·13	0·38	1·26	0·75	6·50
1880	81,780	22·04	5·20	3·79	6·66	0·02	0·40	0·28	0·05	0·15	0·67	0·91	2·49	0·61	6·72

The populations for 1884 to 1898 are those estimated by the Registrar-General, by geometrical progression. The populations for 1883, 1882, and 1881 are estimated by arithmetical progression, the two latter from the first published returns of the census of 1881. The populations of the earlier years are those estimated for those years at the time. The death-rates for 1880 are therefore probably one per cent. too low. See Annual Report for 1882, p. 4, , note and p. 10 note, for 1883, p. 29, and for 1888, p. 16.

TABLE VIII.

DISTRICTS.	Birth-rate.	Mortality per 1,000 Persons Living at all Ages.															
		Children under 1 year.	1 to 5 years.	Adults over 50 years.	Seven Zymotic Diseases.	Constitutional Diseases (including Phthisis.)	Phthisis.	Developmental Diseases.	Diseases of the Nervous System.	Diseases of the Circulatory System.	Diseases of the Respiratory System.	Digestive System.	Diseases of the Urinary System.	Diseases of the Reproductive System.	Violence.	Ill-defined and not Specified Causes.	Total from all Causes.
Central (with Infirmary)	22·96	3·71	1·91	7·35	1·54	3·56	1·32	1·58	2·31	1·54	3·56	1·17	0·48	0·26	1·32	0·77	18·84
Central (without Infirmary)	22·96	3·64	1·76	6·06	1.51	3·16	1·25	1·36	2·20	1·28	3·31	0·70	0·37	0·07	0·70	0·73	15·94
Marsh	19·98	2·90	0·89	4·91	1·45	2·12	1·45	0·89	1·90	1·12	2·34	0·45	0·33	..	0·11	0·33	11·05
Fartown (with Fever Hospital)	20·12	2·65	1·57	6·87	2·26	2·16	1·08	1·86	1·77	1·08	2·55	0·98	0·69	..	0·29	0·49	14·72
Fartown (without Fever Hospital)	20·12	2·65	1·27	6·87	1·27	2·16	1·08	1·86	1·77	1·08	2·55	0·88	0·69	..	0·29	0·49	13·64
Deighton and Bradley	18·26	1·22	3·24	7·30	2·03	0·81	0·40	0·81	3·65	1·62	2·84	..	1·22	0·40	2·03	0·81	16·23
Dalton	24·74	4·36	1·52	4·03	2·07	2·29	0·98	1·63	1·42	1·09	2·72	1·20	0·11	0·11	0·11	0·65	13·84
Almondbury	24·26	2·85	1·46	5·51	0·76	2·53	1·01	1·52	1·46	1·52	2·79	0·95	0·57	0·06	0·19	0·57	13·05
Lockwood (with Workhouse)	26·89	4·51	2·67	10·24	2·21	4·66	2·29	2·75	3·13	1·53	4·89	0·92	0·76	..	0·23	0·76	22·53
Lockwood (without Workhouse)	26·05	4·35	2·60	5·27	1·83	3·44	1·60	1·37	2·21	0·99	3·67	0·92	0·61	..	0·23	0·61	16·27
Lindley	17·07	2·70	1·73	5·51	0·76	2·05	0·65	1·30	1·94	1·19	2·70	0·65	..	..	0·11	0·54	11·67
Longwood	20·29	4·19	1·17	4·36	0·67	2·68	0·67	2·18	1·17	1·84	2·51	1·17	0·67	..	0·67	0·50	14·59
Total for Borough, 1898	22·48	3·44	1·75	6·53	1·51	2·91	1·23	1·68	2·05	1·40	3·17	0·95	0·49	0·10	0·56	0·63	15·91
Do. for 1897	23·39	3·09	1·63	6·39	1·47	3·68	1·82	1·29	2·06	1·70	3·09	1·07	0·69	0·15	0·45	0·47	16·48

TABLE IX.

Cases of infectious diseases certified under the 64th clause of the Huddersfield Improvement Act, 1880, or heard of through others so certified and by private enquiries, during the four quarters of the 52 weeks of the year, 1898.

A Cases of Smallpox, Scarlet Fever, Typhoid, and Typhus Fever.

	13 weeks ended April 2nd, 1898.				13 weeks ended July 2nd. 1898.				13 weeks ended October 1st, 1898.				13 weeks ended December 31st, 1898.				52 weeks ended December 31st, 1898.			
	Cases heard of.	Admitted to Hospital.	Totals deaths in Borough.	Deaths in Hospital.	Cases heard of.	Admitted to Hospital.	Totals deaths in Borough.	Deaths in Hospital.	Cases heard of.	Admitted to Hospital.	Total deaths in Borough.	Deaths in Hospital.	Cases heard of.	Admitted to Hospital.	Total deaths in Borough.	Deaths in Hospital.	Total cases reported or heard of.	Admitted to Hospital.	Total deaths in Borough.	Deaths in Hospital.
Smallpox	1	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2	2	..	..
Scarlet Fever	121	114	6	3	97	89	2	2	76	69	2	1	50	50	..	..	344	322	10	6
Typhoid Fever	14	10	2	..	6	3	1	..	29	19	4	2	28	16	3	2	77	48	10	4
Typhus Fever......	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
The above 4 diseases	136	125	8	3	104	93	3	2	105	88	6	3	78	66	3	2	423	372	20	10

B Other Diseases.

	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		TOTAL.	
	Heard of.	Hospital.	Heard of.	Hospital.	Heard of.	Hospital.	Heard of.	Hospital.	Heard of.	Hospital.
Continued Fever ..	..	..	..	..	..	..	..	..	..	..
Measles & Rötheln	..	..	..	..	..	..	..	..	..	..
Chickenpox	..	..	..	..	..	..	..	..	..	..
Diphtheria	15	..	9	..	12	..	10	..	46	..
Puerperal Fever....	1	..	..	..	3	..	2	..	6	..
Erysipelas	2	..	3	..	3	..	11	..	19	..
Other and doubtful	5	4	..	..	3	1	2	..	10	5

TABL

JANUARY.				FEBRUARY.				MARCH.						
1st week ended January 8, 1898.	2nd week ended January 15, 1898.	3rd week ended January 22, 1898.	4th week ended January 29, 1898.	5th week ended February 5, 1898.	6th week ended February 12, 1898.	7th week ended February 19, 1898.	8th week ended February 26, 1898.	9th week ended March 5, 1898.	10th week ended March 12, 1898.	11th week ended March 19, 1898.	12th week ended March 26, 1898.	13th week ended April 2nd, 1898.		1898.
57	56	47	36	58	51	47	41	41	50	38	36	43	1	.... Tot
47	24	31	24	30	35	42	36	35	40	34	34	30	2	Deaths at
10	4	6	6	6	9	6	10	5	5	5	7	7	3	
7	1	1	4	5	7	6	2	8	7	8	1	4	4	
3	2	7	3	2	3	7	5	2	1	3	6	2	5	
15	9	9	7	12	5	6	6	10	19	8	13	12	6	
4	3	2	1	1	2	4	2	6	5	8	1	2	7	Deaths from seven principal Zymotic Diseases.
....	....	...	....	....	....	....	....	....	....	....	....	....	8	
1	....	....	...	1	1	2	1	3	3	6	....	2	9	
1	2	1	....	....	1	....	....	1	....	....	....	....	10	
1	....	1	....	....	....	2	1	1	2	....	....	....	11	
....	...	..	1	....	....	....	....	....	....	2	....	....	12	
....	....	....	....	....	....	....	....	....	....	....	....	....	13	
..	1	....	....	....	....	....	....	1	....	....	....	....	14	
....	....	....	....	....	....	....	....	....	....	....	....	....	15	
1	....	....	....	....	....	....	....	....	....	....	1	....	16	
13	8	7	4	5	9	6	9	9	10	10	8	6	17	Deaths from
....	3	5	1	3	2	4	2	4	2	1	1	1	18	
7	2	....	2	1	3	2	1	3	5	....	4	5	19	
1	....	....	2	3	1	6	5	....	1	....	2	....	20	
5	3	4	1	5	2	3	4	4	3	2	3	4	21	Deaths in Public
32	28	34	30	24	21	29	23	28	30	24	22	8	22	New Cases and Hon
17	14	10	13	14	19	8	17	13	10	8	9	7	23	Cases notified clause 64, Hud
754	759	766	746	749	739	753	770	776	774	767	787	707	24	Hudd. Distri
29·03	28·52	23·94	18·33	29·54	25 97	23·94	20·88	20·88	25·46	19·35	18·33	21·90	25	Per 1000 of the Population.
23·94	*12·22	15·79	12·22	15·28	17·82	21·39	18·33	17·82	20 37	17·31	17·31	15·28	26	
2·04	1·53	1·02	0·51	0·51	1·02	2·04	1·02	3·05	2·55	4·07	0·51	1·02	27	Death-rate per 1000 living.
6·62	4·07	3·56	2·04	2·55	4·58	3·05	4 58	4·58	5·09	5·09	4·07	3·05	28	
21·45	20·61	20·65	18·75	19·22	20·69	20·39	20·93	20·71	21·09	21·83	20·19	21·56	29	.... Death-ra
35·48	32·30	31·06	31·56	30·15	32·72	29·91	30·55	30·57	31·21	31·26	27·78	32·55	30	.... Birth-ra

* Signifies Huddersfield had the lowest

52 weeks.		APRIL.				MAY.				JUNE.				
		14th week ended April 9th, 1898.	15th week ended April 16, 1898.	16th week ended April 23, 1898.	17th week ended April 30, 1898.	18th week ended May 7, 1898.	19th week ended May 14, 1898.	20th week ended May 21, 1898.	21st week ended May 28, 1898.	22nd week ended June 4, 1898.	23rd week ended June 11, 1898.	24th week ended June 18, 1898.	25th week ended June 25, 1898.	26th week ended July 2, 1898.
rths	1	43	40	44	53	58	25	31	37	29	71	42	49	39
l Ages	2	40	32	33	35	41	31	31	30	28	28	29	23	23
nder 1 year	3	8	3	2	5	5	2	5	5	5	3	4	3	3
o 5 years	4	5	6	3	3	4	3	4	3	4	1	5	3	2
to 60 years	5	7	4	5	4	2	5	4	2	4	3	2	1	4
yrs. and upwards	6	11	12	14	15	17	9	9	13	7	16	10	8	5
ven diseases	7	2	2	....	....	....	1	1	1	1	2	1	1	....
nallpox	8	....	....	....	....	....	....	....	....	....	....	....	....	....
easles	9	2	2	....	....	....	....	....	....	....	....	1	....	....
arlet Fever	10	....	....	....	....	....	....	1	1	....	....	....	....	....
phtheria	11	....	....	....	....	....	1	....	....	1	....	....	....	....
hooping Cough	12	....	....	....	....	....	....	....	....	....	....	....	1	....
ntd. ver. Typhus	13	....	....	....	....	....	....	....	....	....	....	....	....	....
Typhoid.	14	....	....	....	....	....	....	....	....	....	1	....	....	....
Other, &c.	15	....	....	....	....	....	....	....	....	....	....	....	....	....
arrhœa	16	....	....	....	....	....	....	....	....	....	1	....	....	....
ng Disease, &c.	17	11	9	8	9	6	7	3	3	5	6	7	5	7
nsumption	18	2	5	2	1	4	4	2	....	....	2	4	1	2
eart Disease	19	4	2	4	....	4	3	1	3	2	3	2	....	3
olence, &c.	20	....	....	2	1	1	1	2	....	3	2	....	....	1
stitutions	21	2	2	9	5	5	4	7	5	3	5	....	1	3
ckness, Paupers tients	22	34	27	17	20	16	33	21	27	14	22	21	19	13
fectious under Act	23	5	7	9	8	3	9	13	9	13	7	11	12	10
upers relieved	24	708	698	703	685	695	682	680	699	670	699	685	721	703
rth-rate	25	21·90	20·37	22·41	26·99	29·54	12·73	15·79	18·84	14·77	36·16	21·39	24·95	19·86
eath-rate	26	20·37	16·30	16·81	17·82	20·88	15·79	15·79	15·28	14·26	14·26	14·77	11·71	11·71
ven Zymotics	27	1·02	1·02	....	....	....	0·51	0·51	0·51	0·51	1·02	0·51	0·51	....
eathing Organs	28	5·60	4·58	4·07	4·58	3·05	3·56	1·53	1·53	2·55	3·05	3·56	2·55	3·56
English Towns	29	20·24	19·54	18·16	18·44	17·44	16·64	16·43	16·50	16·79	16·94	14·73	15·10	14·90
,, ,,	30	28·82	30·83	33·50	30·05	29·54	29·26	28·80	31·18	25·19	32·47	31·40	28·71	30·58

leath-rate of the 33 Large Towns.

TABL

JULY.				AUGUST.				SEPTEMBER.						
27th week ended July 9, 1898.	28th week ended July 16, 1898.	29th week ended July 23, 1898.	30th week ended July 30, 1898.	31st week ended August 6, 1898.	32nd week ended August 13, 1898.	33rd week ended August 20, 1898.	34th week ended August 27, 1898.	35th week ended September 3, 1898.	36th week ended September 10, 1898.	37th week ended September 17, 1898.	38th week ended September 24, 1898.	39th week ended October 1, 1898.		1898.
42	42	36	50	37	52	44	53	46	35	34	60	47	1	.... To
21	28	21	29	20	31	28	26	29	38	54	40	34	2	Deaths at
2	2	3	7	4	5	7	11	14	13	21	17	12	3	
1	3	1	3	3	2	3	2	1	3	7	....	....	4	
5	2	2	2	1	2	3	3	5	2	6	6	3	5	
8	11	6	6	7	8	7	6	4	15	13	8	10	6	
1	1	....	4	....	2	2	8	8	5	21	7	9	7	Deaths from seven principal Zymotic Diseases.
....	....	....	....	....	....	....	....	....	....	....	....	....	8	
....	....	....	....	....	....	....	....	....	....	....	....	....	9	
....	....	....	....	....	....	....	....	....	....	2	....	....	10	
1	....	....	....	....	....	....	....	1	....	....	....	....	11	
....	....	....	....	....	....	....	....	....	....	1	1	....	12	
....	....	....	....	..	....	....	....	....	....	....	....	..	13	
....	....	....	2	....	....	....	....	....	....	....	....	2	14	
....	....	....	....	....	....	....	....	....	....	..	....	....	15	
....	1	....	2	....	2	2	8	7	5	18	6	7	16	
2	5	1	6	4	6	3	3	3	3	5	5	3	17	Deaths from
2	4	....	....	1	5	6	1	1	3	2	4	5	18	
2	3	3	2	2	3	1	1	1	4	6	4	....	19	
....	2	1	1	2	....	4	....	1	1	....	..	....	20	
5	6	3	5	....	....	4	....	1	1	4	2	6	21	Deaths in Publi
24	18	14	24	14	24	26	19	18	28	21	32	3	22	New Cases and Hor
7	13	9	11	6	4	7	11	8	14	16	12	8	23	Cases notified clause 64, Hud
691	697	700	700	726	701	692	716	716	711	701	728	732	24	Hudd. Distr
21·39	21·39	18·33	25·46	18·84	26·48	22·41	26·99	23·43	17·82	17·31	30·56	23·94	25	Per 1000 of the Population.
10·69	14·26	10·69	14·77	*10·18	15·79	14·26	*13·24	14·77	19·35	27·50	20·37	17·31	26	
0·51	0·51	....	2·04	....	1·02	1·02	4·07	4·07	2·55	10·69	3·56	4·58	27	Death-rate per 1000 living.
1·02	2·55	0·51	3·05	2·04	3·05	1·53	1·53	1·53	1·53	2·55	2·55	1·53	28	
14·67	14·69	15·61	17·25	18·29	20·51	21 98	23·20	24·38	24·59	24·02	23·59	21·84	29	.... Death-ra
30·27	29·82	29·87	32·14	26·71	32·81	30·28	30·62	31·39	29·39	30·25	30·32	30·94	30	.... Birth-ra

* Signifies Huddersfield had the lowes

X.—*Continued.*

52 weeks.		OCTOBER.				NOVEMBER.				DECEMBER.					Totals and Averages.
		40th week ended October 8, 1898.	41st week ended October 15, 1898.	42nd week ended October 22, 1898.	43rd week ended October 29, 1898.	44th week ended November 5, 1898.	45th week ended November 12, 1898.	46th week ended November 19, 1898.	47th week ended November 26, 1898.	48th week ended December 3, 1898.	49th week ended December 10, 1898.	50th week ended December 17, 1898.	51st week ended December 24, 1898.	52nd week ended December 31, 1898.	
Births	1	41	51	57	48	50	58	31	42	42	38	37	30	30	229
All Ages	2	34	36	23	25	23	30	28	25	43	26	31	29	27	162
Under 1 year	3	11	11	7	8	4	10	4	5	9	4	8	6	7	35
1 to 5 years	4	1	4	....	3	1	1	7	8	6	3	2	2	5	17
0 to 60 years	5	3	2	3	3	1	3	6	2	4	5	6	2	4	17
0 yrs. and upwards	6	11	10	9	4	11	5	6	4	10	7	8	12	5	48
Seven diseases	7	5	4	3	2	2	2	1	1	3	2	3	2	3	15
Smallpox	8	....	....	....	....	....	....	....	....	....	....	....	....	....	..
Measles	9	....	....	....	....	....	....	....	....	2	2	1	1	1	3
Scarlet Fever	10	....	....	....	...	....	....	....	....	....	....	....	....	....	1
Diphtheria	11	....	....	....	1	....	....	....	1	....	....	....	....	....	1
Whooping Cough	12	....	....	..	....	....	1	..	..	1	....	1	....	2	1
Contd Fever — Typhus	13	....	....		....	....	....	....	....	....	....	....	....	....	...
Contd Fever — Typhoid	14	....	....	1	....	2	....	....	....	....	....	....	....	....	1
Contd Fever — Other, &c.	15	....	....	..	....	....	....	....	....	....	....	....	....	....	...
Diarrhœa	16	5	4	2	1	....	1	1	....	....	....	1	1	....	7
Lung Disease, &c.	17	3	2	4	6	1	8	4	6	16	8	7	4	7	31
Consumption	18	3	5	1	..	3	1	4	3	3	1	5	4	1	12
Heart Disease	19	1	4	5	2	3	3	1	2	1	3	3	2	2	13
Violence, &c.	20	2	1	1	1	....	2	....	....	3	....	....	1	....	5
Institutions	21	4	4	3	1	2	4	3	3	7	3	2	1	4	17
Sickness, Paupers Patients	22	54	37	37	26	22	19	23	29	21	29	31	26	14	125
Infectious under . Act	23	4	12	10	15	7	5	6	9	2	7	6	10	10	50
Paupers relieved	24	714	709	702	722	701	714	716	724	739	715	727	724	713	37,40
Birth-rate	25	20·88	25 97	29·03	24·44	25·46	29·54	15·79	21·39	21·39	19 35	18·84	15·28	15·28	22·4
Death-rate	26	17·31	18·33	11·71	12·73	11·71	15·28	14·26	12 73	21·90	13·24	15 79	14·77	13 75	15·9
Seven Zymotics	27	2·55	2·04	1·53	1·02	1·02	1·02	0·51	0·51	1·53	1·02	1·53	1·02	1·53	1·5
Breathing Organs	28	1·53	1·02	2·04	3·05	0·51	4·07	2·04	3·05	8·15	4·07	3·56	2·04	3·56	3·0
33 English Towns	29	20·50	19·03	18·80	17·88	17·04	17·24	17·08	17·43	19·11	17·84	16·63	17·81	19·09	19·0
,, ,,	30	30·38	29·96	28·91	31·40	31·14	32·14	30·40	26·19	30·87	31·12	29·21	28·69	25·43	30·3

death-rate of the 33 Large Towns.

TABLE A.

TABLE OF DEATHS during the Year 1898, in the Urban Sanitary District of Huddersfield, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the 52 weeks.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	Population at all Ages.	Births Registered in 52 weeks.	Mortality from all causes, at subjoined Ages.							Mortality from subjoined causes, distinguishing Deaths of Children under Five Years of Age.																						
	Estimated 1898.		At all Ages.	Under 1 year.	1 & under 5	5 & under 15	15 & under 25	25 & under 60	60 & upwards		Smallpox.	Measles.	Scarlet Fever	Diphtheria.	Croup not "spasmodic."	Whooping Cough.	Continued Fevers.			Diarrhœa and Dysentery.	Cholera Nostras.	Rheumatic Fever.	Erypipelas.	Pyæmia.	Puerperal Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease	Injuries.	Other Diseases.	
																	Typhus.	Enteric or Typhoid.	Other or Doubtful.													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
Central	27315	625	434	99	48	25	21	126	115	Under 5...	...	9	1	2	...	3	...	...	...	21	...	1	1	...	...	...	2	34	...	2	71	Central
										5 upwards	...	1	1	...	...	...	...	...	...	3	...	2	...	2	...	...	32	53	33	17	143	
Marsh	8989	179	99	26	8	...	9	25	31	Under 5...	...	2	...	...	...	...	...	...	...	9	...	...	...	...	...	...	...	9	...	...	14	Marsh
										5 upwards	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	13	12	10	1	27	
Fartown	10225	205	139	27	13	1	3	41	54	Under 5...	...	...	...	2	...	1	...	1	...	8	...	...	...	...	...	...	1	8	...	...	19	Fartown
										5 upwards	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	10	17	11	3	55	
Deighton and Bradley	2473	45	40	3	8	2	1	9	17	Under 5...	...	2	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	3	...	...	3	Deighton & Bradley
										5 upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	4	5	16	
Dalton	9207	227	127	40	14	5	7	32	29	Under 5...	...	2	...	1	...	4	...	...	...	7	...	...	...	...	...	...	...	10	...	...	30	Dalton
										5 upwards	...	1	1	1	...	...	...	1	...	1	...	...	...	3	...	...	9	15	10	1	30	
Almondbury..	15838	383	206	45	23	7	11	48	72	Under 5...	...	2	...	3	...	2	...	...	...	2	...	...	...	1	...	...	1	15	...	...	42	Almondb'ry
										5 upwards	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	15	27	23	3	67	
Lockwood ...	13135	341	213	57	34	6	9	63	44	Under 5...	...	9	...	1	...	...	...	...	...	12	...	...	1	...	...	...	3	25	1	...	39	Lockwood
										5 upwards	...	1	...	...	...	...	...	1	...	...	...	...	1	2	...	...	18	22	12	3	62	
Lindley	9288	158	108	25	16	5	3	21	38	Under 5...	...	2	1	...	...	1	...	...	...	2	...	...	...	...	...	...	...	12	...	1	22	Lindley
										5 upwards	...	...	...	1	...	...	...	...	...	...	...	1	...	1	...	...	6	12	11	...	35	
Longwood ...	5984	121	87	25	7	4	4	26	21	Under 5...	...	1	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	7	...	2	19	Longwood
										5 upwards	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	4	8	7	2	33	
Infirmary	...	...	79	2	4	2	12	41	18	Under 5...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	2	Infirmary
										5 upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	5	4	16	46	
Hospital	...	...	11	...	3	3	1	4	...	Under 5...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Hospital
										5 upwards	...	...	3	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	1	
Workhouse ...	...	11	82	2	1	2	...	28	49	Under 5...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	Workhouse
										5 upwards	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	9	16	4	...	46	
TOTALS......	102454	2295	1625	351	179	62	81	464	488	Under 5..	...	29	5	12	...	11	..;	1	...	66	...	1	2	1	...	...	7	125	1	6	263	TOTALS
										5 upwards	...	3	5	2	...	...	...	9	...	11	...	6	1	8	...	...	119	190	129	51	561	

The subjoined numbers have also to be taken into account in judging of the Mortality of this Division of the Sanitary District.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Deaths occurring (in Deanhouse Hospital) outside the division or district among persons belonging thereto..			13	...	...	...	...	2	11	Under 5...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
										5 upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	12
Deaths occurring (in the Birkby Hospital, Workhouse, and Infirmary) within the division or district among persons not belonging thereto			42	...	2	1	4	20	15	Under 5...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
										5 upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	1	5	28

TABLE B.

New Cases of Sickness occurring during the 52 weeks ended December 31st, 1898, amongst Out-Door Paupers.

	DISTRICTS OF BOROUGH.		Smallpox.	Measles and Rotheln.	Scarlatina.	Diphtheria.	Croup.	Whooping Cough.	Continu'd Fevers: Typhus.	Continu'd Fevers: Typhoid.	Continu'd Fevers: Other doubtful (Febricula, &c.)	Diarrhœa and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Influenza.	Consumption.	Other diseases of Breathing Organs.	Diseases of the Heart, Liver, Kidney, Stomach, & Bowels.	Convulsions and diseases of the Nervous System	Violence, &c.	Immaturity and Old Age.	Other diseases.	Lead Poisoning.	TOTALS.
	I	II	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	a	b	c	31	d	e	f	32
Out-door Paupers.	Central	Under 5	..	1	..	..	..	1	..	..	..	9	..	..	..	..	..	1	..	14	7	1	..	1	14	..	49
		5 upwards	..	..	2	..	..	..	..	1	9	22	..	16	1	..	..	3	10	95	47	55	4	..	91	..	356
	Marsh	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		5 upwards	..	..	..	..	..	..	..	..	1	4	..	1	..	..	..	..	..	11	5	2	..	2	5	..	31
	Fartown	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
		5 upwards	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	9	4	1	..	..	6	..	21
	Deighton and Bradley	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		5 upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Dalton	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	..	3
		5 upwards	..	..	1	..	..	..	..	..	..	..	..	4	..	..	..	..	..	17	7	9	1	..	7	..	46
	Almondbury	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	1	..	..	1	..	6
		5 upwards	..	..	..	..	..	..	..	..	7	9	..	9	..	..	..	..	6	26	18	11	2	2	25	..	115
	Lockwood	Under 5	..	1	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	7	1	1	..	..	2	..	15
		5 upwards	..	..	..	..	..	..	..	..	4	3	..	8	..	..	..	..	2	24	20	15	1	..	14	..	91
	Lindley	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
		5 upwards	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	6	..	1	..	2	11	..	23
	Longwood	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		5 upwards	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	7	5	1	..	2	14	..	30
	Whole Borough	Under 5	..	2	..	..	..	1	..	..	1	11	..	..	..	..	..	1	..	26	10	3	..	1	19	..	75
		5 upwards	..	..	3	..	..	..	..	1	23	41	..	38	1	..	..	3	18	195	106	95	8	8	173	..	713

STREET LIST.

Arranged under the heading of each Infectious Disease.

Deaths which occurred at Birkby Hospital are allocated to the District from which the cases were notified.

	PLACE OF DEATH.	DISTRICT.	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Enteric	Diarrhœa
1	Alder Street	Central							1
2	Bankfield Road	,,							1
3	Calton Street	,,				1			
4	Castlegate	,,					1		
5	,,	,,							1
6	,,	,,							1
7	Commercial Square	,,							1
8	Dale Street	,,							1
9	Green Street	,,		1					
10	Greenhead Road	,,							1
11	Grove Street	,,							1
12	Infirmary	,,				1			
13	Kirkgate	,,							1
14	Leeds Road	,,			1				
15	Longroyd Bridge	,,		1					
16	,, ,,	,,		1					
17	,, ,,	,,		1					
18	Lowerhead Row	,,			1				
19	Northgate (Schoales Square)	,,							1
20	,, ,,	,,		1					
21	Outcote Bank	,,		1					
22	Portland Street	,,							1
23	St. Andrew's Road	,,					1		
24	,, ,,	,,		1					
25	St. John's Road	,,							1
26	St. Paul's Street	,,		1					
27	South Parade	,,							1
28	South Street	,,		1					
29	Back Spring Street	,,					1		
30	Thomas Street	,,				1			
31	,,	,,							1
32	Back Union Street	,,							1
33	Upperhead Row	,,							1
34	,, ,,	,,							1
35	Upper Aspley	,,							1
36	Watergate	,,							1
37	Water Lane	,,							1
38	York Street	,,							1
39	,,	,,							1
40	,,	,,		1					
41	Zetland Street	,,							1
42	,,	,,							1

STREET LIST—Continued.

	PLACE OF DEATH.	DISTRICT.	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Enteric	Diarrhoea
43	Birkby Hospital	Central			1				
44	,, ,,	,,			1				
45	,, ,,	,,			1				
46	,, ,,	,,						1	
47	,, ,,	,,						1	
48	,, ,,	,,						1	
49	,, ,,	,,						1	
1	Church Street, Paddock	Marsh							1
2	Gledholt Bank	,,							1
3	Hill Top, Paddock	,,							1
4	Hill Top Road, Paddock	,,							1
5	Mark Street ,,	,,							1
6	,, ,,	,,							1
7	,, ,,	,,							1
8	New Street, ,,	,,							1
9	North Street, ,,	,,							1
10	Schofield's Buildings, Paddock	,,		1					
11	,, ,, ,,	,,		1					
12	Upper Brow Road, ,,	,,							1
13	,, ,, ,,	,,							1
14	Birkby Hospital	,,			1				
1	Ashbrow Road	Fartown							1
2	Birkby Hall Road	,,				1			
3	Bradford Road North	,,							1
4	Fartown Green	,,							1
5	Halifax Old Road	,,							1
6	,, ,,	,,							1
7	Lightridge Road	,,				1			
8	Miln Road	,,					1		
9	Netheroyd Hill	,,						1	
10	Scholes' Buildings, Sheepridge	,,							1
11	Shearing Cross	,,							1
12	,,	,,							1
13	Stead's Cross, Cowcliffe	,,							1
1	Ash Grove Road	Deighton & Bradl'y		1					
2	Cherry Nook, Deighton	,, ,,		1					
3	Leeds Road North, Woodhouse Cottages	,, ,,							1
4	Oak Road, Bradley	,, ,,				1			
5	Old Road, ,,	,, ,,							1

STREET LIST—Continued.

PLACE OF DEATH.	DISTRICT.	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Enteric	Diarrhœa
1 Barrow Buildings	Dalton		1					
2 Birkhouse Lane	,,							1
3 Boar's Head Yard, Moldgreen	,,						1	
4 Carr Pit Road, ,,	,,		1					
5 Church Lane, ,,	,,							1
6 Dyson Street	,,					1		
7 Green Mount Street	,,							1
8 Greenside	,,							1
9 Highroyd	,,		1					
10 Ivy Street	,,							1
11 Ivy Street back	,,				1			
12 Moldgreen	,,				1			
13 Ravensknowle Road	,,					1		
14 ,, ,,	,,					1		
15 ,, ,,	,,					1		
16 School Street	,,							1
17 Somerset Arms Yard	,,			1				
18 Tolson's Yard	,,							1
19 Victoria Street	,,							1
1 Dodsroyd	Almondbury					1		
2 Lockwood Scar	,,							1
3 Lower Houses	,,						1	
4 Moss Street	,,					1		
5 ,,	,,				1			
6 Salford	,,							1
7 School Hill	,,				1			
8 Smithy Lane	,,		1					
9 Somerset Place	,,		1					
10 Top of Bank	,,				1			
11 Wasp Nest	,,						1	
12 Westgate	,,						1	
13 Birky Hospital	,,			1				
14 ,,	,,			1				
1 Albert Street	Lockwood		1					
2 ,,	,,		1					
3 ,,	,,							1
4 Barton Road, Crosland Moor	,,							1
5 Folly Hall	,,							1
6 Hope Street	,,							1
7 ,,	,,		1					
8 Hopkinson's Yard	,,							1

STREET LIST—CONTINUED.

PLACE OF DEATH.	DISTRICT.	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Enteric	Diarrhœa
9 Lockwood Road	Lockwood		1					
10 Marsden Road	,,		1					
11 ,,	,,							1
12 Moor End Road	,,							1
13 Park Road West	,,		1					
14 Rashcliffe	,,		1					
15 ,,	,,		1					
16 ,,	,,							1
17 ,,	,,							1
18 Summer Street	,,							1
19 Swan Lane	,,		1					
20 ,,	,,				1			
21 Thornton Road	,,							1
22 ,,	,,						1	
23 Victoria Road	,,		1					
24 Victoria Street, Albert Place	,,							1
25 Workhouse	,,							1
26 ,,	,,							1
27 ,,	,,							1
28 ,,	,,							1
29 ,,	,,							1
1 Brian Street	Lindley					1		
2 Carr Street	,,		1					
3 Cleveland Road	,,			1				
4 Harp Road, Quarmby	,,							1
5 Quarmby Road	,,		1					
6 Union Street	,,							1
7 West Street	,,				1			
1 Armitage Road	Longwood							1
2 Ing Top	,,							1
3 Longwood Road	,,				1			
4 Quarmby Road	,,		1					

Particulars of Work Performed by Scavenging Staff at Hillhouse Depot, Streets, &c.

1898.	Receptacles brought in to the Depôt, &c.	Number of hours worked by Sweeping Machine. (Central District).	Refuse burnt in Hillhouse Destructor.		Loads of Clinkers disposed of.
			Loads.	Tons.	
January	42,516	$224\frac{3}{4}$	811	723	243
February ...	38,733	$267\frac{1}{2}$	674	602	263
March	43,480	$350\frac{3}{4}$	763	669	252
April	41,605	320	558	465	225
May	40,515	$347\frac{1}{2}$	548	447	165
June	44,306	365	504	388	182
July	42,625	$359\frac{1}{2}$	Destructor stopped		13
August	44,517	376	for Repairs.		...
September ...	43,824	353	423	310	50
October	40,619	350	927	732	309
November ...	40,500	362	670	542	197
December ...	45,208	384	686	541	226
Year	508,448	4060	6564	5419	2125

LOADS COLLECTED DURING THE YEAR 1898.

1898.	Ashes.	Central District Street Sweepings.	Shop and Market Refuse.	Slaughter House Refuse.	Barrels of Water from Mains. (Central District).
January	2559	341	56	21	..
February	2177	293	51	21	...
March	2411	338	58	25	..
April	2402	264	60	20	226
May	2294	264	58	19	411
June	2428	272	53	22	582
July	2141	307	67	27	1627
August	2453	292	49	15	1054
September	2093	297	67	23	1351
October	2409	252	61	20	...
November	2285	297	62	24	...
December	2429	317	70	29	...
Total	28081	3534	712	266	5251

HILLHOUSE DEPOT MANURE SALES.

MONTHS.	Stable Manure	Shoddy Manure	Grass Manure	Market Refuse.	Night-soil.	Slaughter house Refuse.	TOTALS (Tons).
1898.							
January.........	104	7	74	129	...	24	338
February	62	31	7	68	10	20	264
March	72	30	118	111	19	23	373
April	53	51½	28	86	40	15	273½
May	91	70	116	103	1	45	426
June	76	51	75	122	22	15	361
July	17	7	26	46	...	7	103
August	40	8	168	93	...	18	327
September......	50	15	64	89	...	14	232
October	124	1	83	99	...	18	325
November	39½	24	32½	132½	...	28	256½
December	48	22	32	96	...	4	202
Approximate Total ...	776½	317½	889½	1174½	92	231	3481

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